The RUBBER AGE

225 Fourth Avenue, New York

VOL. XVIII. December 10, 1925 No. 5

PLAN TO OPEN EXCHANGE DESPITE OPPOSITION OF RUBBER TRADE ASSN.

Although Directors of Rubber Trade Association Passed a Resolution that an Exchange Would be Detrimental to the Industry, F. R. Henderson Says it Would Help

The Rubber Trade Association of New York, an organization of crude rubber dealers and importers, after much discussion on the part of its directors, passed a resolution opposing the rubber exchange proposed some months ago by F. R. Henderson as detrimental to the industry at this time. A few days afterward, Mr. Henderson declared that the action of the association would have no effect on his plans for the exchange, and that as soon as the details of organization had been completed, the exchange will be opened.

Send Letter to Members

The following letter was recently sent to rubber manufacturers, crude rubber importers, dealers and others identified with the industry:

To the Members of the
Rubber Trade Assn. of N. Y. Inc.
Gentlemen:

At a meeting of the Board of Directors of the Rubber Trade Association of New York, Inc., held Tuesday, Nov. 17th, 1925, the suggestion as to the advisability of establishing a New York Rubber Exchange was considered and freely discussed. The following resolution was thereupon unanimousiy adopted:

RESOLVED that in the opinion of the Board, reached after mature consideration, the establishing of a rubber exchange at this time, on account of existing conditions in the world's crude rubber situation, would be detrimental to the best interests of manufacturers, importers, dealers and others engaged in the rubber industry, and would at the present time be contrary to the objects and purposes for which this Association was established.

Yours very truly,
J. P. SULLIVAN,
Secretary.

Owing to the existing conditions in the world's crude rubber situation, it was stated, an exchange would furnish an opportunity for outside speculators to enter the market and raise prices up to $1.60 per pound or more. It would prove disastrous to the trade, and would place brokers and manufacturers at the mercy

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N. Y. COCOA EXCHANGE MAY TRADE IN RUBBER

The board of managers of the New York Cocoa Exchange at a meeting on November 30 adopted resolutions to permit the exchange to trade in crude rubber futures on its floor. At a meeting of the exchange on December 10 these resolutions will be subject to approval, and if approved, the by-laws of the institution will be changed to permit trading in this commodity.

The resolutions adopted provide for an increase in membership sufficient to take care of the rubber interests which are expected to join. A special concession in the fee of memberships to be classified as "rubber founder memberships" will be made. A limited number of these memberships will be offered to the rubber trade at a price materially under the $5,000 at which cocoa memberships are now selling. Provisions also were made to increase the membership of the board of managers and to add another vice president to the officers of the exchange, the name of which will probably be changed to the New York Cocoa & Rubber Exchange, Inc.

Although it was planned originally by the founders of the Cocoa Exchange to extend its activities to include trading in rubber and other tropical products, it was not anticipated that this development would take place so early in its existence, as the exchange has been in existence only two months. Demand from members both in New York and abroad who are interested in rubber trading and from outside interests, however, moved the board of managers to take action.

Exclusive of any rubber founder memberships, the exchange has a surplus of $125,000 in its treasury and the New York Cocoa Clearing Association has a guarantee fund in excess of $100,000. The executive offices of the exchange, now located on the first floor of 124-126 Water St., New York, will be moved to the second floor to provide additional space.

Published on the 10th and 25th of each month by Gardner Publishing Co., 225 Fourth Ave., N. Y. C. and Highland, N. Y. Address correspondence to N. Y. office. Subscription rates: Domestic, $2.00; Canada, $2.50; Foreign, $3.00. Single Copies, 10c.

Entered as Second Class Matter June 10, 1920, at the Post Office at Highland, N. Y. under Act of March 3, 1879. Advertising Rates Furnished on Application. Forms close 10 days before publication.

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of outside speculators who now stay out of the rubber market. The rubber industry at the present time, it was stated, calls for no special facilities in trading.

F. R. Henderson, who secured a charter last spring for the creation of a rubber exchange in New York City and who later secured the approval of a number of rubber dealers for such an exchange said in an interview:

"Trading in rubber as a commodity on an exchange is inevitable. My sole desire in obtaining the charter was that it might begin to function in the near future so as to foster trading within the rubber trade rather than by the outside interests.

Many Applications Received

"We have a number of applications from outside interests for seats on the exchange and, what is most important, we have received sufficient applications from many firms in the rubber trade both here and abroad who are desirous of hedging their operations in rubber, to warrant going ahead with its organization.

"The operation of the exchange can in no way adversely affect business between importers or dealers and manufacturers.

"We have sufficient applications on hand to justify the immediate establishment of the exchange. To carry out the original purposes application blanks will be sent immediately to all members of the rubber trade in New York that they may have an opportunity of joining at the outset.

"Several desirable locations for the exchange are under consideration but no definite choice has as yet been made."

One 'ad' read has far greater value than ten which are never seen. In THE RUBBER AGE every 'ad' is read!

On November 28, the Crude Rubber & Forcign Produce Corp., 250 W. 57th St., New York, of which F. R. Henderson is president, issued the following statement:

"An impression has gained ground that outside participation in the rubber market would stimulate a violent advance. We believe quite differently and our opinion is thoroughly supported by the best authorities on Exchange matters. Some little time must necessarily elapse before the Rubber Exchange of New York can function. Establishment of quarters, setting up of an organization, with proper rules, regulations and safeguards, require time.

"The situation in the rubber market today can be summarized as follows: On one side we have the statistical information, which is available to everyone in the trade and which has largely been responsible for the almost continuous advance during the current year. The advance has been greatly exaggerated by outside speculators in Europe, who soon realized that the rubber market was what might be termed a 'one-way market'."

"Barring rumors of the abolition of restriction, such as occurred at the end of July and again the beginning of October, there has been no appreciable check to the "bull" market in rubber, and these recessions were short-lived because they were only based on selling by frightened holders of rubber, who became panicky. Using the statistics which are available, both as regards estimated production and consumption, rubber can advance to a dangerously high price. In other commodities, when a similar situation exists, the only resistance to such an advance is a substantial amount of selling on what is termed the "bear" side. As against the statistical position of rubber, an Exchange would supply the means for a considerable amount of selling.

High Prices May Reduce Consumption

"There is a widespread belief in and out of the industry that today's level of price will, sooner or later, prove a substantial resistance to the maintenance of today's tonnage in consumption. Even the recent increase in tire prices is a serious matter for a large number of motor car owners. There is a marked increase in the use of reclaimed rubber and every effort is being made to increase its production. There is the constant protest of manufacturers all over the world against the British regulation of production in the East. Mr. Hoover has repeatedly expressed himself and his attitude is known countrywide.

"Economists have expressed themselves that a commodity which can be produced at about 20c per lb. cannot long sell on the basis of 500% return to the producer. Considerable is being written about a material slowup in automobile production before very long and none can dispute the basic reasons. Some time about the middle of next year an adjustment of general business conditions is inevitable, after the recent and even present rate of building, real estate advances and scale of wages in general lines of business.

"Those in the industry are just as cognizant of all of these conditions as they

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MAY OPEN N. Y. RUBBER EXCHANGE JANUARY 15

The action of the Cocoa Exchange, as described on Page 143 will have no effect on the plans of F. R. Henderson for a rubber exchange, the charter for which was granted by the State of New York last June.

In a statement issued to THE RUBBER AGE on December 4, Mr. Henderson stated that considerable progress has been made toward the establishment of The Rubber Exchange of New York, Inc. The number of seats already purchased and the number of applications received up to December 4, indicate that the membership limit will be reached shortly, he said.

Mr. Henderson, who is president of the new Rubber Exchange of New York, Inc., stated that the exchange will probably be operating by January 15, 1926. He said, nevertheless, that the board of governors will not permit undue haste to endanger the carefully considered plans which will make the exchange an institution worthy of the size and importance of the rubber industry.

The attention of Mr. Henderson was called to the circulation of a rumor to the effect that the Rubber Exchange of New York, Inc. would affiliate with some other exchange. He stated that the rumor was without foundation; and that the Ruber Exchange will have no connection with any other exchange. Its operations will be confined *exclusively* to trading in rubber and rubber futures.

Manhattan Opens Branch

On December 1, the Manhattan Rubber Manufacturing Co., Passaic, N.J., opened a factory branch in Philadelphia under the management of John S. Latta, former head of John S. Latta & Co., Inc., which have been sole agents for the Manhattan company in Philadelphia for many years. The new branch occupies the former quarters of John S. Latta & Co., at 2132 Market St.

Nicar Joins Lambertville

Edward Nicar, formerly connected with the Firestone Tire & Rubber Co., was recently appointed general superintendent of the Lambertville Rubber Co., Lambertville, N. J., manufacturers of footwear. Joseph Sutterly was made production manager to succeed K. B. White, resigned.

Tucker Opens Beacon Plant

The factory of the New York Rubber Co. at Beacon, N. Y., which is now owned by the Tucker Rubber Corp., Buffalo, was recently reopened by the Tucker company for the manufacture of rubber tubing.

Fellsway Liquidated

The Fellsway Rubber Co., Medford, Mass., manufacturers of mechanical moulded goods and rubber soles and heels, was recently liquidated. The details in connection with the liquidation are being handled through an office of the company at 43 Lincoln St., Boston, Mass. The Emery Rubber Heel Co. has rented part of the Fellsway factory at 30 Locust St., Medford.

Rubber Products Prosperous

According to T. G. Richards, vice president of the Rubber Products Co., Barberton, Ohio, 1926 is expected to be a banner year for the company. The factory is now operating three eight-hour shifts and employs 185 hands. Present production is 3,500 pieces and it is expected that this will be increased to 6,000 pieces a day in 1926. The company manufactures hot water bottles and molded goods. The total payroll amounts to $20,000 a month.

WILL OPEN EXCHANGE DESPITE OPPOSITION

(Concluded from Page 144)

are of the statistical position of rubber and they also realize that there is no means of the vast speculative community expressing themselves through what might be called "opinion sales."

"We do not mean to suggest that an Exchange would prove to be a panacea in the rubber business but we strongly maintain that while the statistical position of rubber justifies, and probably will for some time, more than a fair return to the producer, an Exchange properly set up is the only means of bringing a semblance of stabilization to a market otherwise subject to unhealthy swings."

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BEGIN WORK OF CLEARING JUNGLE ON FIRST 50,000-ACRE TRACT IN LIBERIA

Firestone Plantations Expects to Finish Planting First Tract Within Six Months—240 Men From Akron Will Be Supervising Work on Plantation By January First

Clearing away of the jungle preparatory to the planting of 1,000,000 acres with 100,000,000 rubber trees was recently begun by the Firestone Plantations Co. in Liberia. By January 1, 240 men sent from Akron will be in Africa working on the project which Harvey S. Firestone maintains will be supplying between 25 and 33 per cent of the world's crude rubber within the next decade.

The planting of the first 50,000 acres will be completed within the next six months and a tract of at least the same size will be planted in the six months following. In Mr. Firestone's opinion the Liberian acquisition and development is certain to bring down rubber prices.

"Planters the world over have had the feeling that America has only been bluffing in its rubber projects," Mr. Firestone said. "It has appeared to them that the United States manufacturers have not been willing to invest money with a return no nearer than five or six years. They believe they have noted an American desire to cash in on investments at once and that therefore the Americans are not inclined to make any thorough developments. This attitude is rapidly changing now as our work goes forward in Liberia."

Also Begin in Mexico

Following the entry of the Firestone forces into the little African republic the company's head announced that 35,000 acres had been acquired in Tobasco, on the Isthmus of Tehuantepec, in Mexico, and that rubber already was being extracted from trees planted there by other interests several years ago.

In addition to these enterprises Mr. Firestone capped his world-wide rubber quest with the announcement that he was seriously considering entering the Amazon basin, in South America, where millions of acres of rubber lands are undeveloped.

In addition to the planting, care taking and collecting of rubber, the Firestone company is improving the harbor at Monrovia, the seat of Liberian government. From the harbor roads will be constructed to radiate into the hinterlands. In the entire area of the country, which is 43,000 square miles—almost exactly that of the State of Ohio—there are but 100 miles of passable highway. This mileage is segregated and unconnected.

Hospitals also will be built and laborers' huts will be constructed for the housing of the natives who are to be brought from their pagan villages into modern sanitary areas.

Provision is being made for the importation of foodstuffs to replace the local production that will be lost when the natives cease cultivating their own farms and go to work on the rubber plantation.

Moore-Merritt Sold

The factory of the Moore-Merritt Rubber Co., Chattanooga, Tenn., has been exchanged for the plant of the Smith Hosiery Mills, and the rubber company has gone out of business. The Moore-Merritt company was chartered last December in Tennessee with an authorized capital of $300,000 to manufacture a complete line of mechanical rubber goods and specialties. Officers were Thomas L. Moore, president; C. W. Merritt, vice president; R. A. Barber, secretary; C. E. Barber, assistant secretary and treasurer.

The company purchased a factory about 100 x 125 ft. of brick, concrete and steel construction from the Dubois Rubber & Tire Co. There are four acres of ground surrounding the plant.

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FISK SUBMITS PLAN FOR BACK DIVIDEND PAYMENT

The Fiske Rubber Co., Chicopee Falls, Mass., has submitted to its stockholders a plan which provides for liquidation of all back dividends due on preferred stock and also calls for the raising of additional working capital. A special meeting of stockholders has been called for December 11 to approve the action of the directors.

According to a statement issued recently, "the accumulated dividends on the first preferred stock now amount to $26 a share and on the second preferred to about $31 a share. In settlement of the dividends on the first preferred it is proposed to offer stockkholders $1 in cash and $25 in first preferred convertible stock, which will be entitled to dividends of 7 per cent., ranking equally with the present first preferred stock and will be convertible into four shares of common stock at any time up to Dec. 31, 1935. When all the dividends on the first preferred stock are paid it is proposed to offer to second-preferred stockholders in payment of their accumulated dividends common stock to be taken at a valuation of not less than $25 a share.

The company further points out that "In view of the increase in the price of crude rubber to $1 a pound, the working capital requirements will be greatly increased, and that, although the company is now in a very strong position with net current assets of $28,000,000, of which $8,200,000 is in cash, nevertheless, it is desirable to procure additional working capital as insurance against contingencies which may arise. They consequently ask stockholders to approve the issue of not to exceed $10,000,000 short-termed notes."

The company reports that net earnings available for dividends for the year ended Oct. 31, 1925, will approximate $7,500,000.

"Pulled 20 to 30 Inquiries"

So writes a chemical manufacturer whose booklet was reviewed in THE RUBBER AGE. Real proof of results!

Jersey Firms Prosperous

According to a monthly summary prepared by the Trenton (N.J.) Chamber of Commerce with the co-operation of manufacturers, conditions in the rubber industry in New Jersey are improving. The number of employees reported September 30 last, as compared with the same date a year ago, was 115 per cent. Production remained unchanged but sales

Reopen Akron Branch

The Union Power Co., Shreveport, La., producers of carbon black, recently reopened its Akron branch in Room 310, United Bldg. F. T. Barton is in charge.

MANUFACTURERS URGED TO FILL OUT CENSUS FORMS

The Bureau of the Census is making plans for the next biennial census of manufactures, which will cover the year 1925, as provided in the Act of Congress approved March 3, 1919.

In deciding upon the items to be covered by the census, the bureau has consulted with the representatives of various manufacturers' associations with a view to securing, as far as practicable and without making the schedule too elaborate, information which will be of value to the representatives of the several industries concerned, and at the same time furnish a record of the progress of manufactures generally throughout the United States.

The blank forms upon which reports should be made will be mailed by the bureau to all manufacturers about January 1, and a report will be required from each manufacturer whose gross products are valued at $5,000 or more for the year 1925. It is to be hoped that every manufacturer concerned will have his records in such shape that he can fill out the schedule within a few days after its receipt, as the tabulation of each industry will not be made by the Bureau of the Census until reports are received from all manufacturers engaged in it. THE RUBBER AGE therefore urges its readers to furnish this information soon after January 1 in order that we may have, as early as possible in 1926, the statistics which will show the condition and record of their industry for the year 1925.

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HARVEY S. FIRESTONE, JR., PREDICTS END OF HIGH CRUDE RUBBER PRICES

Believes that Liberian and Other Rubber Growing Projects Will Bring Relief, Despite British Claim that Rubber May Remain at Over 50 Cents a Pound for 5 Years

A prediction that the price of crude rubber will soon decline was made recently in London by Harvey S. Firestone, Jr., son of Harvey S. Firestone, president of the Firestone Tire & Rubber Co., Akron. Mr. Firestone, Jr., is in charge of the London office of the Firestone Plantations Co., which has started work on a large tract in Liberia, Africa.

"A spread between the cost of production and selling prices, such as exists today in rubber," said Mr. Firestone, "never has lasted and cannot last for long." Crude rubber brokers in London were unanimously opposed to this opinion and said that the price of rubber will not go below 50 cents a pound for five years or more. Even at 50 cents a pound, they said, an average estate producing 300 pounds an acre at an average cost of 18 cents a pound would make a profit of $96 an acre.

Mr. Firestone does not share the opinion of Eric Miller, chairman of Harrison & Crosfield and former president of the Rubber Grower's Association, that American rubber should acquire large reserve stocks of rubber when it again becomes more plentiful. (The address of Mr. Miller was published in the November 25 issue of THE RUBBER AGE—The Editor.)

Mr. Firestone said the business of the Firestone Tire & Rubber Co. has been exceptionally good this year in America and Canada. In Britain, Firestone had its best year.

Referring to the Liberian project which has been so widely criticized in Britain, Mr. Firestone said he did not take the criticism seriously. The Firestone Plantations Co. is actually producing and tapping 2,000 acres leased from the Liberian government at costs comparing favorably with those obtaining in Malay. Seed for the areas which they will exploit later, will be obtained from its nursery of 2,000 acres, sufficient to supply 30,000 to 50,000 acres per annum. There are also native plantations available at call, and others in the German Cameroons. The plantation company does not anticipate more difficulty from swamps than is encountered in Malay, where they reckon on 25 per cent waste land. The whole of the 1,000,000 acres to be developed is not in one block, but split up into number of specially selected plots.

Mr. Firestone anticipates an ample supply of labor from the estimated Liberian population of 2,000,000. At present labor is being exported.

In reply to a criticism made in London that the Firestone Plantation Co. had placed its labor costs too low at 24 cents a day, Mr. Firestone said that though wages on the coast might be around 48 cents a day, this rate did not obtain in the interior and he is sure they can get all the labor they need at 24 cents a day.

The scheme for building a harbor at Monrovia, at the mouth of a river, has also been criticized as impracticable, owing to the shifting sand bars. Mr. Firestone said that the J. G. White Engineering Corp. is engaged in making further examinations before starting work, but is confident of success.

Byam Joins Fabricord

Seward G. Byam, who for several years has been employed by the Plymouth Rubber Co., Canton, Mass., first as chemist and then as general superintendent, has resigned to become assistant manager of the du Pont Fabricord Co., Fairchild, Conn. Mr. Byam was associated with the du Pont company as chemist some years ago, establishing its first laboratory in Fairchild. He is a graduate of Brown University.

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SOVIET UNION SEEKS TO GROW OWN RUBBER

The British rubber monopoly is hampering the development of the rubber industry of the Soviet Union to such an extent that the Soviet authorities are cooperating with the industrialists in an energetic effort to make the country independent for its crude rubber supply, according to bulletins received by the Russian Information Bureau. The Soviet Rubber Trust, like the American manufacturers, is alarmed over the high cost of the raw material.

Experiments are now being carried on with the growing of caoutchouc-bearing plants in Turkestan, Transcaucasia and other sub-tropical sections of the country. Professor Voronov has been sent to South America by the Leningrad Botanical Garden to make a thorough study of rubber cultivation. In addition government scientists are working on plans for the production of artificial rubber. It is expected that the Supreme Economic Council will offer a substantial prize for the best process of producing rubber synthetically.

The rubber industry of the Soviet Union is now producing at about 60 per cent of the pre-war volume. In 1920 production had fallen to 5 per cent. Of the seven plants under the Rubber Trust, only three are working regularly. Much of the equipment became worn out during the war, but considerable replacement is now provided for, and there will be substantial additions of new machinery of the latest types during the current fiscal year. Machinery to the value of $2,300,000 will be purchased in the United States, England, France and Germany, and a new tire factory will be built near Moscow. The pre-war rate of production will be passed by the middle of 1927. There is, however, no immediate prospect that production can catch up with the demands of the rapidly expanding market. The high cost of the raw material is a serious handicap.

Please Omit Flowers!

There are no 'dead' ads in THE RUBBER AGE they are all live—placed where your prospect can see them.

To Sell Sound Assets

Sale of the assets of the Sound Rubber Co., Tacoma, Wash., to satisfy creditors and bondholders was recently ordered by Judge M. L. Clifford in Superior Court at the hearing of the report of Harry R. Greenlee, the receiver appointed Oct. 6. Holdings and equipment of the company are to be put up for sale Dec. 8 unless the stockholders in the meantime can formulate some plan for the continuance of operation.

MILLER ANNOUNCES NEW LINE OF TRUCK TIRES

The Miller Rubber Co., Akron, recently announced a new line of five, six, seven, eight, nine, and ten inch tires especially suitable for the rapidly growing truck and bus market.

Larger in section, more flexible in carcass construction, stronger in carcass, more carefully balanced tread and carcass combination, and as an adhesion between the tread and cushion gum practically prohibits tread separation and cushion gum rolling, they are said to be the ideal truck and bus tire.

They will carry the standard loads a greater distance than old designs, it is claimed; there is greater chance for heat radiation and less chance for heat generation; the larger volume of air increases their cushioning properties; they fill the need of bus and truckmen and therefore meet ready sale.

Great development of busses and universality of their use has opened a demand for better tires made to stand up under the rigorous use of bus operators. Thousands of busses and trucks are being placed into service in the United States every year and the total bus and truck mileage has grown almost unbelieveable since the war. Because of the heavy service bus and truck tires must undergo testing of this class of tire has been unusually stringent and observation of thousands upon thousands of miles by tire engineers have been necessary.

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Defiance, Ohio

SERVUS LETS CONTRACT FOR A $63,221 ADDITION

The Servus Rubber Co., Rock Island, Ill., recently let a contract for the completion of the second unit of the factory. The contract price was $63,221, with the understanding that the building is to be completed within 100 days. Work is to be started immediately.

The building is to be of brick and concrete, three stories high. With the addition of heating and wiring, not included in the contract, and equipment, it is estimated that the improvement will cost more than $100,000. The completion of the unit will enable the Servus company to reach a production in excess of 12,000 pairs of rubber footwear a day. The number of employees, which at present is 625, will be increased to 775.

Judson J. Adams, president, stated it is anticipated that by July 1, 1926, the number of employees will be even larger. "We have orders on hand," he said, "to be shipped before January 1, amounting to 21 carloads in addition to many smaller orders."

India Sales Gain 89 Per Cent

The sales of India Tire & Rubber Co., Ohio, for the first six months of 1925 were $2,220,221, or 89% greater than for the corresponding time last year, according to J. M. Alderfer, president, in a letter to India stockholders.

"Despite the fact that our plant ran to its fullest capacity from January to September, we have been constantly behind on orders for the past seven months," Mr. Alderfer stated. "Our daily production has increased far beyond anything that has ever before been necessary."

Net profit after taxes, for six months, ending June 30th, was $314,655, which, after preferred dividends, was equivalent to $27.70 a share on the common stock.

Franklin Starts Production

The new Franklin Rubber Co., organized by Walter Kline, recently began production in the former plant of the Wayne Tire & Rubber Co., Orrville, Ohio, which had been idle for two years. The Franklin company will manufacture tubes exclusively. According to Mr. Kline, orders for $75,000 worth of tubes have already been booked, and an endeavor will be made to produce 1,000 tubes a day.

Reading Machinery Sold

The entire equipment of the Reading Rubber Co., Reading, Pa., was recently sold at public sale to L. Albert & Son, Trenton, N. J., dealers in second-hand rubber machinery. As the Albert company had little competition in the bidding for the larger pieces it was able to buy the entire lot for only $483. The Reading Rubber Co., which manufactured proofed fabrics, moved to Reading from Kutztown two years ago and located in the old town hall.

CLASSIFIED ADVERTISING

10 cents a word, minimum charge $2.00, payable in advance.
Address replies to Box Numbers, care THE RUBBER AGE, 225 Fourth Ave., New York.

HELP WANTED

YOUNG MAN WANTED

By Progressive Eastern Manufacturer. Must be capable of independently designing and checking tire mold and core equipment. Give full details, references and salary expected, etc. in first letter. Box 415, THE RUBBER AGE.

CHEMIST

Analytical, organic. State age, education, experience and salary expected. Box 416, THE RUBBER AGE.

SITUATION WANTED

Twelve years practical experience in mechanical rubber goods manufacturing. Thoroughly understand compounding, factory installation and management, having served three years as foreman and five years as superintendent. Age 31. Will consider any offer present or future. Best of references. Box 417, THE RUBBER AGE.

EQUIPMENT FOR SALE

FOR SALE: One 42″ x 42″ hydraulic double opening vulcanizing press, 16″ ram, good condition. Will stand 2,000 lb. working pressure. Exceptional value. Address: Sun Rubber Company, Barberton, Ohio.

20 Paragon Swift Braiders. Have been in use but a short time. Bay State Insulated Wire & Cable Co., Hyde Park District, Boston, Mass.

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M. L. CANNON
PRESIDENT & TREASURER

KANNAPOLIS, N. C.

Superior Quality Tire Fabrics

EGYPTIAN-PEELER
KARDED & COMBED
CORD & SQUARE WOVEN

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55 Worth St.

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Representative

RUBBER DIVISION WILL MEET FEB. 22 IN AKRON

The Rubber Division of the American Chemical Society will hold a joint meeting with the Akron Section on February 22 and 23, 1926. An entertainment under the joint leadership of committees of both sections is to be furnished. Papers dealing directly or indirectly with the chemistry of rubber are to be presented as in the past.

A new committee known as the Raw Rubber Specification Committee has been created. The committee includes the following members: C. W. Sanderson, Fisk Rubber Co., chairman; J. P. Coe, United States Rubber Co.; R. P. Dinsmore, Goodyear Tire & Rubber Co.; H. A. Hoffman, B. F. Goodrich Co.; and E. A. Van Valkenburgh, Ajax Tire & Rubber Co.

The duty of this committee is to compose a specification for governing the purchase of raw rubber. There is at the present time no basis except the general appearance in its original state as purchased, that is, before treatment of any kind such as milling or vulcanizing. The committee is aware that an infallible specification cannot be written immediately. To prevent any unnecessary delay, however, the committee is to present at the Akron meeting a tentative specification which will comprise the essentials upon which the committee agrees up to the time of the meeting.

The new officers of the Division, which were elected by a letter ballot are as follows: Chairman, J. M. Bierer; Vice Chairman, R. P. Dinsmore; Secretary, A. H. Smith; Executive Committee, W. E. Glancy, E. A. Van Valkenburgh, W. Scott, W. A. Gibbons, H. L. Trumbull.

E. H. Clapp to Build Homes

The E. H. Clapp Rubber Co., Boston, already a large holder of real estate, has purchased a two-acre tract in the village of Hanover Four Corners, Mass., and will erect houses for the use of employees.

Stroebeck Succeeds Spatz

Leonard Stroebeck has been chosen to succeed Henry Spatz, deceased, as general manager of the Premier Rubber Mfg. Co., Dayton, Ohio, manufacturers of hard and soft mechanical rubber goods.

The Man with the Buying 'Say'— Reads THE RUBBER AGE. If you have an interesting message, he'll be sure to see it if placed in these pages.

Goodrich Promotes Matthias

The B. F. Goodrich Co., Akron, recently announced the appointment of Gilbert L. Matthias as superintendent of the mechanical goods division. Mr. Matthias was formerly manager of the development

Gilbert L. Matthias

department, which has charge of all experimental work, where he worked under J. R. Gammeter. After his graduation from high school, Mr. Matthias took special training in mechanical engineering and then took a position with the National Tube Co., Lorain. While there he observed that the rubber industry was destined to be one of the greatest and quit his job in 1912 to accept one with Goodrich designing machines. Mr. Matthias, who attributes much of his success to J. R. Gammeter, returned recently from a two months tour of Europe.

INCREASE TIRE OUTPUT IN MANY AKRON PLANTS

It is reported from Akron that many departments in tire factories are now resuming full time schedules, after operating for five days a week since October 1. There was a seasonable decline in sales at the opening of the fall season when spring dating was abolished, but it is said that in the last few weeks the demand for tires has been greater than was anticipated. Sales to automobile manufacturers of original tire equipment have been particularly heavy, due to the record breaking production of cars.

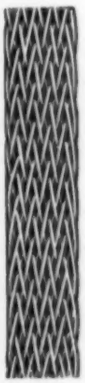
Although none of the tire companies are accepting deferred payment orders, as was the case last year, dealer business is claimed to be good. From now on, tire production is expected to steadily increase, reaching peak levels shortly after the first of the year. Most of the tire manufacturers have been running about 80 per cent capacity during the last two months. The advance in prices of original tire equipment which is being considered, will offset to a large extent the increased cost of crude rubber.

India Announces Bus Tube

The India Tire & Rubber Co., Akron, has just announced an inner-tube for bus tires, made of a composition which is heat-proof. Extensive tests have demonstrated that even under the most severe conditions the heat of the brake drum will not affect this new composition. This new India heat-proof tube is expected to revolutionize the manufacture of inner-tubes for bus tires, inasmuch as tire manufacturers have been confronted with a great deal of trouble, particularly where the busses make a long run. This breaking down of the tube is due to the fact that the heat of the brake drum decomposes the rubber, particularly in the tubes next to the drum.

Gillette to Rebuild

The Gillette Rubber Co., Eau Claire, Wis., manufacturers of molded rubber goods, has tentative plans under advisement for the reconstruction of portions of its factory destroyed by fire August 17 last. The loss was reported at close to $400,000, including machinery. A similar amount will be expended for rebuilding.



Perfect Beads

Entire freedom from bead trouble in the construction of straight side tires is assured by the use of either National "(Patent)" High Tensile Strength, Flat Woven, Bead Braid or our new (Pratt Patent) Bead Cables. These cables, made to dimensions specified, have seven strands, yet only one piece of wire is used without soldered, welded or brazed joint.

Write for working samples of either National flat braid or Pratt cables (no charge to tire manufacturers) and full information as to our products and service.

Our engineering department tests beads and furnishes complete confidential reports as to their stretch, set and bursting point, without charge. Inquiries solicited regarding this special service.

National Standard Company
Niles, Michigan

THE I. B. KLEINERT RUBBER CO.
is Headquarters for

Dress Shields	Reducing Garments	Powder Puff Pockets
Guimpes	Rubber Sheetings	Tourist Cases
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Crib Sheets	Household Aprons	Dress Protectors
Bathing Caps	Shirlastic Ribbon	Sanitary Goods

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I. B. KLEINERT RUBBER CO., 485 Fifth Avenue, New York

AETNA STARTS ERECTION OF A $150,000 ADDITION

The Aetna Rubber Co., Ashtabula, Ohio, expects to start work in a few days on a new two-story building to adjoin the present factory. The addition will have a 140 foot frontage on State Road and will extend back 150 ft. Together, with equipment, it is expected to cost $150,000. At present, the company employs 175 employees and is working on a three-shift basis.

According to James Dunn, factory manager, the new addition has been made necessary by the increased demand for storage battery boxes which is one of the company's chief products. The building is expected to be completed by January 1.

Everlive Rubber Formed

The Everlive Rubber Corporation, New York City, was recently chartered at Albany with an authorized capital of $600,000, consisting of 10,000 shares preferred stock of $10 par value and 50,000 shares of common stock, also of $10 par value. The company will manufacture rubber products and rubber susbstitute and rubber substitute products. Incorporators are P. W. Quinn, Alvira Quinn, Charles E. Le Barbier, 19 West 44th St., Manhattan; Anna M. Kirk, 118 West 78th St., Manhattan; and Margaret M. McAlevey, 181 8th St., Brooklyn. Charles E. Le Barbier, 19 West 44th St., Manhattan, is attorney for the corporation.

RUBBER ASSOCIATION TO MEET JAN. 11

The annual meeting and election of the Rubber Association of America will be held January 11, 1926, at the Hotel Commodore, New York. The meeting will be followed that evening by a banquet at the same hotel.

Gilmer Adding Equipment

The L. H. Gilmer Company, Philadelphia, manufacturers of automobile fan belts, is installing in its plant at Tacony, Pa., additional equipment for the manufacture of its rubber belts, in order that all processes from the raw materials to the finished belt may be carried out in its own plant under its own supervision and to provide increased capacity for taking care of the growing demand for these belts, both in this country and for export. In addition to both flat and "V"-type automobile fan belts, the Gilmer company manufactures a variety of belts of both rubber and fabric, specializing in the manufacture of small woven endless belts for high-speed machine drives.

Auburn to Make New Tire

The Auburn Rubber Co., Auburn, Ind., is planning for the production of a new tire and tube on a large scale. The new products will be placed on the market to meet the demand for a tire combining the advantages of good quality at a reasonable price.

YOUNG IS SECRETARY OF AERONAUTICAL CHAMBER

W. C. Young of the Goodyear Tire & Rubber Co., Akron, was elected secretary of the Aeronautical Chamber of Commerce at a meeting held November 12 at the executive offices, 300 Madison Ave., New York. Mr. Young, who is a graduate of the University of Virginia, has been associated with the Goodyear company since July, 1916, and is now manager of the aeronautical department of the company. He is also a member of the Aero Club of America and the Akron University Club.

Stedman Sues Puritan

J. H. Stedman, president of the Stedman Products Co., South Braintree, Mass., recently filed suit in the U.S. District Court in Trenton, N.J., against the Puritan Rubber Co., Trenton. It is alleged by the complainant that the Puritan company infringed a patent in connection with a method of making rubber tiling.

C. S. Fuller Joins India

A new addition to the sales force of the India Tire & Rubber Co., Akron, is C. S. Fuller, formerly of The Denman-Myers Cord Tire Co. Mr. Fuller has been traveling the states of Iowa, Illinois and Indiana out of Chicago for the last five years, and is well known and liked throughout that territory. He will cover the northern parts of Indiana and Illinois for the India company.

Aero Brand
DPG
DIPHENYLGUANIDINE

Highest purity - uniform quality - reliable shipments - dependable supply - these have become synonyms for Aero Brand.

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Rubber Substitutes

WECCO

ALL GRADES

SAMPLES FURNISHED

MANUFACTURED BY

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SEPTEMBER PRODUCTION OF ALL CASINGS LOWER

Production of all types of tires was lower in September than in the preceding month, according to a statistical bulletin issued recently by the Rubber Association. Production of balloon casings in September was 1,235,022, shipments were 1,171,157 and inventory was 2,051,377, compared with August production of 1,418,347, shipments of 1,053,625 and inventory of 2,023,580. Production of balloon inner tubes in September was 1,304,857, shipments were 1,197,397 and inventory was 2,110,958, compared with production of 1,276,717, shipments of 1,089,752 and inventory of 1,982,971 in August.

The production of high pressure cords in September was 2,173,276, shipments were 1,826,432 and inventory was 3,227,418, compared with production of 2,409,070, shipments of 1,999,548 and inventory of 2,895,254 in the preceding month. Production of high pressure inner tubes in September was 4,135,336, shipments were 3,801,442 and inventory was 5,351,879, compared with production of 4,436,678, shipments of 4,102,160 and inventory of 4,970,360 in August.

In September the production of fabric casings was 347,037, shipments were 429,438 and inventory was 482,179, compared to August production of 377,813, shipments of 516,985 and inventory of 527,108. Production of solid and cushion tires in September was 65,309, shipments were 51,633 and inventory was 181,240, compared to August production of 75,166, shipments of 57,117 and inventory of 170,419.

Consumption of cotton fabric in casings was 14,025,320 lb. in September, compared with 15,758,123 lb. in August. Consumption of crude rubber in casings, tubes, solid and cushion tires was 46,745,268 lb. in September, compared with 52,170,657 lb. in August. Consumption of gasoline in September was 849,000,000 gal. Production of passenger cars was 272,396.

Factory Figures for September

	September	August	September, 1924
ALL CASINGS			
Inventory	5,760,974	5,445,942	4,524,405
Production	3,755,335	4,205,230	3,530,878
Shipments	3,427,027	3,570,158	3,404,239
ALL TUBES			
Inventory	7,462,837	6,953,331	6,038,868
Production	5,440,193	5,713,295	5,506,442
Shipments	4,998,839	5,191,912	5,180,804
HIGH PRESSURE CORD			
Inventory	3,227,418	2,895,254	2,731,376
Production	2,173,276	2,409,070	2,077,359
Shipments	1,826,432	1,999,548	1,959,306
BALLOON CASINGS			
Inventory	2,051,377	2,023,580	850,430
Production	1,235,022	1,418,347	479,755
Shipments	1,171,157	1,053,625	398,324
FABRIC			
Inventory	482,179	527,108	942,599
Production	347,037	377,813	973,764
Shipments	429,438	516,985	1,046,609
HIGH PRESSURE INNER TUBES			
Inventory	5,351,879	4,970,360	5,153,778
Production	4,135,336	4,436,578	5,039,594
Shipments	3,801,442	4,102,160	4,823,039
BALLOON INNER TUBES			
Inventory	2,110,958	1,982,971	885,090
Production	1,304,857	1,276,717	466,848
Shipments	1,197,397	1,089,752	357,765
SOLID AND CUSHION			
Inventory	181,240	170,419	179,927
Production	65,309	75,166	54,106
Shipments	51,633	57,117	59,581

Mogul Rubber Formed

The Mogul Rubber Co., Wilmington, Del., was recently incorporated to deal in crude rubber and gutta percha. Authorized capital is $25,000. Incorporators are H. E. Potter, Philadelphia; Walter Hamstrom, Germantown, Pa.; and G. E. Robinson, Roxborough, Pa.

Bead Core Patented

Frank H. Beyea, recently granted U.S. Patent No. 1,561,684 on a bead core, has assigned the patent to John R. Gammeter, Akron. The patent covers a circular gromet comprising wire wound upon itself in plurality of convolutions lying closely together, the wire having tapering sides.

HOPES TO GROW RUBBER IN SOUTHERN LOUISIANA

William H. Van Gessel, a Dutch agricultural expert, who recently arrived in New York on the *Belgenland*, said that he intends to go to Washington shortly to lay before the Department of Agriculture plans for growing rubber in southern Louisiana. Mr. Van Gessel, who predicted an increased shortage in the crude rubber supply until 1930, said his proposal, if carried out, would meet the demand in this country for crude rubber.

Mr. Van Gessel, who before the war was one of the largest individual plantation owners in Java has had 22 years of practical experience in rubber planting. He made a survey of the fields along the Gulf section last April and had already pointed out that Florida could be developed into a greater cane sugar center than is Java and added that the state held tea, coffee and tobacco growing possibilities equal to those of any part of the world.

"Without doubt, rubber could be grown very profitably in southern Louisiana, especially in the vicinity of Buras and places having similar climatic and soil conditions," Mr. Gessel said in speaking of his plans.

"The United States Department of Agriculture does not think rubber raising in Louisiana is practicable, but I think they are wrong and others who have made a study of the subject as I have, agree with me.

While waiting for the rubber trees to reach a development at which they became profitable, catch crops of cotton, sugar cane and corn could be raised."

In further support of his contention as to the adaptability of Louisiana to rubber raising, Mr. Van Gessel said that State is raising other tropical crops that require conditions identical with those required for rubber.

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MANUFACTURERS OF
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WITH A REPUTATION FOR
UNIFORMITY -- RELIABILITY -- CLEANLINESS

TIRE DEALERS AT SIXTH CONVENTION CONDEMN RETAIL FACTORY BRANCHES

National Tire Dealers Association in Session at St. Louis Passes Resolutions Protesting Some Practices Common to Manufacturers—H. A. Ruhnke Elected President

Five resolutions registering the disapproval of tire dealers of practices common to tire manufacturers were passed at the sixth annual convention of the National Tire Dealers Association at the Hotel Chase, St. Louis, November 17 to 19, inclusive.

Speakers at the opening session included R. M. Hudson, chief of the Division of Simplified Practice, Department of Commerce, who spoke on "Simplification and Standardization of Sizes and Types of Tires; Orville Livingstone, secretary of the National Association of Credit Men, whose subject was "Time Payments"; Paul W. Brown, publisher of the *Executives Magazine* who discussed "The 1920-1925 Business Revolution and the Wheels on Which it Runs"; and H. D. Hines of the Firestone Tire & Rubber Co., who spoke on the crude rubber situation.

Mayor Welcomes Delegates

Addresses of welcome were made by Mayor Victor Miller and A. P. Woehrle, president of the Associated Tire Dealers of St. Louis. Minutes of the 1924 convention were read and committees appointed at the business meeting on the afternoon of the first day. Owing to a last minute change of plans, neither Harvey S. Firestone, president of the Firestone Tire & Rubber Co., nor F. A. Seiberling, president of the Seiberling Rubber Co., was able to speak at the convention as had been planned.

A tire and automobile accessory show was held in conection with the convention at which exhibits were shown in the east lounge and small ballroom of the Hotel Chase.

The five resolutions registering the disapproval of the dealers covered:

1. The entrance of tire manufacturers into the retail field in direct competition with their regularly established agents.
2. The printing of consumer price lists by the manufacturers.
3. The practice of the manufacturer selling direct to the consumer either as national or commercial accounts.
4. The rebating to the dealers by the manufacturers of 10 per cent on sales made by them to certain select consumers at dealers' cost prices and the establishment by the manufacturer of the ultimate cost price of his product.
5. The sale by manufacturers of their merchandise to so-called automobile clubs and co-operative buying associations who merchandise to their members; the merchandising of tires on mileage contracts and rental service agreement.

H. A. Ruhnke

To Issue House Organ

It was decided to enlarge the board of directors from seven to nine members and to have the office of secretary-treasurer an elective one, with the holder being compensated for his services.

Herbert A. Ruhnke, of Milwaukee, was elected president; H. V. Eva, of Duluth, Minn., vice president; George J. Burger, of New York, retiring president, secretary-treasurer, an elective office created through an amendment to the by-laws of the association. The following directors were elected: S. V. Harper, Fort Smith, Ark., for one year; Victor Shaw, Charlotte, N. C., for two years; A. M. O'Leary, Chicago, for two years; A. L. Glick, Pittsburgh, for three years; and A. P. Woehrle, St. Louis, for three years. These dealers, together with Arthur Roderick, carried over from last year, with the officers, compose the board of directors.

It was decided that the national dues for members of locals should be $15 and dues of individual members not affiliated with locals should be $25. It was also decided to issue a house organ and to hire an executive and organizer. Dealers were called upon to pledge themselves for $100; some 32 dealers subscribed to the guaranty. This money is to be collected and used at the discretion of the directors.

On the last day, Memphis, Tenn., was selected as the location for the 1926 convention.

Open Factory in Mexico

A new factory, the Compania Hulero El Popo, was recently opened in Mexico City. It will manufacture tires, tubes, rubber heels, rubberized clothing and other rubber products. At the ceremony which marked the starting of the machinery, President Calles officiated. He expressed pleasure at the steps which the company had taken to utilize some of the innumerable raw materials of the country and toward promoting domestic manufacture. It was stated that the Hulero company had already received orders for tires from various cities in Mexico. It is planned to use nothing but Guayule and other Mexican rubbers.

EMBOSSING CALENDERS
For Artificial Leather, Oil Cloth, Carriage and Automobile Covers
DRYING MACHINES
with Copper or tinned iron Cylinders for Cotton Ducks, Drills and Sheetings
The Textile-Finishing Machinery Co.
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PROVIDENCE, R. I.

THE VULCANIZED RUBBER CO.
Manufacturers of
HARD RUBBER GOODS
of Every Description
251 Fourth Ave. New York

RESULT GETTERS—
Thats what THE RUBBER AGE want 'ads' are! Try one when you need more equipment or want to dispose of old machinery.

Everybody is helped— everybody should help!

TUBERCULOSIS in this country is a threat against your health and that of your family. There are more than a million cases in this country today.

The germs from a single case of tuberculosis can infect whole families. No one is immune. The only sure escape is to stamp out the dread disease entirely. It can be stamped out. The organized work of the tuberculosis crusade has already cut the tuberculosis death rate in half. This work is financed by the sale of Christmas Seals.

Everybody is helped by this great work — and everybody should help in it. Let every member of your family stamp all Christmas parcels, letters and greeting cards with these able little warriors against disease. Everybody, everywhere, buy Christmas Seals — and buy as many as you can.

Stamp Out Tuberculosis with this Christmas Seal

THE NATIONAL, STATE, AND LOCAL TUBERCULOSIS ASSOCIATIONS OF THE UNITED STATES

W. O'NEIL SEES INCREASE IN USE OF BUS BALLOONS

Balloon tires for busses are now appearing on the horizon of development. "With the future of bus transportation assured," W. O'Neil, president of the General Tire & Rubber Co., Akron, recently said, "our tire engineers turned their efforts toward adapting balloon tires to this heavier form of transportation which attains the speed of the ordinary light pleasure cars, and the results have created keen enthusiasm and satisfaction among bus manufacturers and operators."

The demand for balloon tires for busses is now being felt and has created a topic for conversation at all bus conventions. Bus operators are constantly looking for ways and means to improve their service, cut the cost of operation, and furnish comfortable and safe transportation to their customers. A bus involves an investment of between $8,000 and $12,000 depending on the type and size. In constant service daily the depreciation at the end of the year runs into considerable money. The theory that low pressure tires cut down repair bills has come to be realized by fleet owners not only of light delivery trucks and taxicabs but now also of busses. There are a large number of taxicab companies in the country operating exclusively on the low pressure tires. Some of these companies who have accurate records of operation costs claim that by the use of the low pressure General Tires they not only save from ten to fifteen per cent in gasoline but their repair bills for upkeep of cabs have been reduced from twelve to twenty per cent in many cases. The change to pneumatics came because their ledgers showed at the end of the year that repair bills on equipment using pneumatic tires was much less than on the solid tire equipment. They are now even carrying the idea further and asking for the balloon to replace the high pressure pneumatic. General originated the idea of a low pressure tire and their engineers now hope to eventually obtain the same success in the development of a balloon bus tire. Their development department has been experimenting on these new tires for some time. Results so far are very favorable but the bus type balloon has still not approached the state of perfection that exists in the present passenger balloon tire.

At best the universal adoption of balloon tires for busses would be several years after adoption even though they prove highly successful. A change in wheel and rim equipment and an adjustment of the spacing of the wheels would be necessary on busses now in use. Then

(Continued on Page 158)

One Master Only

THE RUBBER AGE serves one field only—that of rubber *manufacturing*. It does not cater to the retail tire dealer.

$10,000,000 STOCK ISSUE OFFERED BY FIRESTONE

Announcement of an additional offering of $10,000,000 7 per cent cumulative preferred stock of the Firestone Tire & Rubber Co., Akron, at a price of 99 and accrued dividends was made recently by the National City Company and Otis & Co.

In a letter to the bankers, Harvey S. Firestone, president, said that the proceeds would be used as additional working capital to meet expansion needs.

According to figures made public in connection with the financing, the net income of the Firestone company and its subsidiaries in the United States, after allowing 6 per cent preferred stock dividends and the retirement fund, averaged $7,306,833 a year for the four years ended Oct. 31, equivalent to more than five and one-half times the annual dividend requirements on the 7 per cent stock to be outstanding.

The Company's Capital

With the completion of this financing the company's oustanding capital will consist of 8,000,000 of 6 per cent cumulative preferred, $100 par value, stock; $18,380,900 of 7 per cent cumulative preferred, $100 par value, and 355,026 shares of common stock. The company, through subsidiaries, controls plants engaged in the manufacture of steel rims, rubber goods, rubber boots and shoes, and cotton mills in which tire fabrics are manufactured. It is also making preparations to grow its own rubber.

How Should Rubber be Dried ?

The Rubber Shortage demands economy in crude and reclaim preparation.

Carrier Drying Systems,

including the well known Hunter Process, produce uninjured and uniformly dried stock. These Systems assure reduction in time, space, labor and milling costs.

Write for details.

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CLAY

WATER GROUND WATER FLOATED

Highest Test for the Rubber Trade
IN

Gravity — Fineness — Abrasion — Hardness — Tensile Strength — Moisture Content (practically bone dry) — Absolute Uniformity.

Will Save You Zinc On Account Of Its Extreme Fineness

See Report of BUREAU OF MINES on Georgia Clays.

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CLEVELAND, OHIO

SALES AGENTS
for
THE AKRON PIGMENT COMPANY
CARTERSVILLE, GA.

Stocks Carried at

Cleveland, O. **McIntyre, Ga.**

W. O'NEIL SEES INCREASE IN USE OF BUS BALLOONS

(Continued from Page 157)

too, before balloons can be successfully used the tire consumers must be more thoroughly educated on the care of this item which runs into hundreds of thousands of dollars a year for some operators. The one important factor in the proper servicing of tires for satisfactory mileage is sufficient inflation. On busses this will require accurate daily checking. The loss of ten to twenty pounds of air in a high pressure bus tire is a small percentage of the total air but if this were lost in a balloon type practically a third of the inflation is lost. Such a thing would prove a serious loss to a bus operator if he were not sufficiently educated to the necessity of maintaining absolutely correct air pressure at all times. The thorough and enthusiastic adoption of the balloon tire for passenger service has had a certain reaction that has caused tire users to discount the importance of ample air in securing mileage and has resulted in a general tendency to neglect air pressure.

Rainbow May Open Soon

At a recent meeting of the Delaware, Ohio, Chamber of Commerce a letter written by the Rainbow Rubber Co. was read. The rubber company stated that financial arrangements had been completed and that they were prepared to operate their factory in the near future.

FORD'S "PLANTATION" ONLY ONE ACRE

In a letter to The Editor, E. G. Liebold, general secretary to Henry Ford, says: "There is not much of a story in connection with Mr. Ford's 'rubber plantation.' A few experimental plants were set out (at La Belle, Florida—Ed.) for the purpose of ascertaining whether or not the various rubber plants could be grown in Florida. A small tract of about one acre is still being cultivated for this purpose."

J. F. Joseph Resigns

After 28 years of service with the B. F. Goodrich Co., Akron, John F. Joseph, superintendent of the mechanical rubber goods department, recently tendered his resignation so that he could attend to personal affairs. Mr. Joseph has large realty holdings in Akron and will devote his time to this business.

McQuate Incorporated

Articles of incorporation were recently issued to the McQuate Rubber Co., Oakland Heights, Marion, Ohio. The company is capitalized for $40,000. Incorporators include W. W., D. D. and Earl E. McQuate, Layard Miller and B. T. Wiant. The factory recently went on a 24-hour basis, increasing production to 250 gross of toy balloons a day.

INDIA DISTRIBUTORS HOLD CONFERENCE IN FRISCO

Seventy dealers attended the Annual Conference of Pacific Coast distributors of India Tires, held recently at the Whitcomb Hotel, San Francisco. J. M. Alderfer, president of the India Tire & Rubber Co., Akron, presided at the meeting and was assisted by F. L. Ryan of San Francisco, Pacific Coast manager.

One of the most enthusiastic boosters for these annual conferences is Frank T. Price, president and general manager of Nelson & Price, Inc., largest Pacific Coast distributors of India Tires, who made this comment: "These meetings are for the purpose of bringing about a closer relationship between the factory and the dealer. We are acquainted with the factory plans for the coming year and assured co-operation in every way. In turn, the dealer is given an opportunity to personally give his experience with India Tires. One of the reasons for the tremendous success of India Tires is the close relationship between the factory and their dealers."

Rubber Process Patented

Omar H. Smith, assignor to the Naugatuck Chemical Co., was recently granted U.S. Patent No. 1,562,262, on a process of treating rubber hydrocarbon which consists in incorporating with it a normal alkaline-base salt of a phosphorus acid.

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EXPECT GOOD REPORTS FROM MANY AKRON FIRMS

Judging from reports received, practically all Akron tire manufacturers are enjoying a volume of business that will permit them to announce large sales and earnings by the end of the year.

The Firestone Tire & Rubber Co. expects its sales to exceed the record of $115,000,000 set in 1920. The B. F. Goodrich Co. is experiencing one of the best years in its history, with earnings expected to exceed $17 a share on 610,000 common shares outstanding, compared with $12.26 in 1924. Remarkable gains in sales and net profits by the Mason Tire & Rubber Co., Kent, are shown in its report for the first nine months. The company reported earnings, after all charges, of $126,939 on total sales of $7,755,540. Earnings for the third quarter were several thousand dollars more than those for the first half.

New Victor Company Formed

First steps toward the reorganization of the Victor Rubber Co., Springfield, Ohio, the purchase of which was announced in the Nov. 25th issue of THE RUBBER AGE, were taken recently when papers were filed for the incorporation of the Victor Rubber Products Co. Authorized capital is $150,000. Incorporators are J. B. Cartmell, president of the First National Bank of Springfield; Arthur R. Hill, George Cugley, R. F. White and T. W. Anthony. The new company will continue to manufacture the rubber mats formerly made by the defunct Victor company and in addition, plans to manufacture other mechanical rubber goods.

Overman Increases Stock

The Overman Cushion Tire Co., Inc., New York City, with a factory in Belleville, N. J., recently filed a certificate in the office of the Secretary of State at Albany increasing the number of shares of stock from 9,000 of $100 par value each, of which 4,000 are preferred and 5,000 common, to 11,000. Of these 11,000 shares, 5,000 are preferred with a par value of $100 and 6,000 are common with no par value.

Elmhurst Rubber Organized

The Elmhurst Rubber Co., Inc., Elmhurst, N. Y., was recently organized and will be operated under the same management as was the Middlesex Rubber Co., Reading, Mass. The plant of Chas. E. Campbell has been purchased and an addition to the building completed. The company plans to manufacture sponge rubber specialities, rubber bands, molded rubber specialities, gloves and druggists' sundries. Officers are Charles H. Traiser, president and George E. Jeandheur, secretary, treasurer and general manager. H. A. Schlosser, formerly of the Hodgman Rubber Co., Tuckahoe, N. Y., will be factory superintendent.

LITCHFIELD SEES NEED FOR NEW PLANTATIONS

One million acres of rubber trees should be planted at once in new areas in order to anticipate the rapidly increasing demand for crude rubber and to keep down the prices of manufactured rubber products, according to Paul W. Litchfield, first vice president of the Goodyear Tire & Rubber Co., Akron.

"The Goodyear and United States Rubber companies entered the plantation industry nine years ago and other rubber companies are seeing the need of entering it today," Mr. Litchfield said. "Goodyear is getting large quantities of crude rubber from its own plantations. There is now but a three-month supply of crude rubber in the world, and it takes at least two months to get rubber from plantation to factory, illustrating why rubber companies are unable to accumulate a surplus of crude stocks."

Walsh Convalescing

Victor Walsh, vice president of the Swinehart Tire & Rubber Co., Akron, is now convelescing at his home after a serious operation.

To Make Rubber Tiling

The Harley & Lund Corp., New York City, was recently chartered at Albany with $2,000 capital to manufacture rubber tiling. M. S. Harley, C. O. Lund, 154 Nassau St., and Harry Miller, 303 Fourth Ave., are the incorporators.

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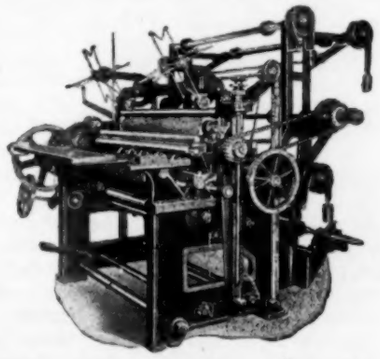
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W. B. WIEGAND JOINS BINNEY & SMITH CO.

An announcement of considerable interest to the trade has just been made by the Binney & Smith Co., New York, the well-known suppliers of Micronex and other carbon blacks. W. B. Wiegand has joined their organization and will be associated with D. F. Cranor in the Research and Development Department.

Mr. Wiegand needs no introduction to the trade, as he has been an outstanding figure in the realm of rubber compounding for a number of years, and is recognized as one of the leading rubber physicists.

Since being graduated with honors from the University of Toronto in 1912, Mr. Wiegand has occupied executive positions with representative Canadian rubber manufacturing companies. He has been chief chemist, and later, assistant to the vice president of the Canadian Consolidated Rubber Co. at Montreal; director and general manager of the Ames, Holden, McCready Co., and in more recent years vice president and managing director of the Ames-Holden Tire & Rubber Co., Kitchener, Ontario.

Was Chairman of Rubber Division

Mr. Wiegand was chairman of the Rubber Division of the American Chemical Society during the year 1923, and has presented several important papers before that and other bodies in the United States, Great Britain and Canada. These include—

"Some aspects of the Rubber Stress-Strain Curve"
"Rubber Energy"
"The Persistence of Calender Grain after Vulcanization"
"Physical Testing Graphs"
"The Resilient Energy Criterion—as applied to the shape of the Rubber Stress-Strain Curve"
"On the more complete evaluation of the Pigment Reinforcement of Rubber"
"Effect of Electricity on streams of water drops"
"On Some Rubber Compounding Tendencies"

In his original paper "Some Aspects of the Rubber Stress-Strain Curve" published in 1920, the author brought together for the first time the various properties of the compounding ingredients commonly used in the rubber industry, and showed conclusively that the differences in the behavior of different pigments were referable to their degree of sub-division. He showed that there was a continuous sequence in the pigment series, showing more and more reinforcing or beneficial effect upon the rubber mixings, as their average particle diameter became less and less.

He was the first to suggest the use of the capacity for work or proof resilience of a rubber compound as the best single measure of its quality. This has now become part of rubber technique everywhere.

In his various papers have been pointed out the extraordinary energy and storage capacity of rubber, and the effect of pigmentation upon this property throughout the whole range of effective concentrations. The energy criterion has been used as an integral index to the shape of the rubber stress-strain curve.

He has studied in detail the phenomenon of calender grain and shown how it may be controlled by the conditions of vulcanization and of pigmentation.

In his most recent paper read before the Institution of Rubber Industry in London, September 14th, he has put forward further views as to the measurement and mechanism of reinforcement, introducing the idea of plane elasticity, also exhibiting the engineering possibilities of the Joule effect by applying it to the construction of rubber engines, both rotary and reciprocating.

W. B. Wiegand

Mr. Wiegand is on the editorial board of the French rubber journal *"Le Caoutchouc et la Gutta Percha."*

In recent years Mr. Wiegand has done pioneer work on the phenomena of higher concentrations of pigments, and has succeeded in producing a class of rubber compounds bridging the gap between soft rubber and ebonite. The achievement of these effects he has found attainable only through the use of very high percentages of Gas Black. This development in rubber compounding, which is the logical outcome of his studies on the science of reinforcement, gives promise of far reaching practical developments, the realization of which seems likely very greatly to extend the use of rubber in the arts.

For some time the Binney & Smith Co. has maintained a rubber laboratory or shop where work connected with the compounding of carbon black in rubber has been carried on in a very complete way, and the results obtained have been of marked interest.

Mr. Wiegand's association with this department should amplify its possibilities in a very interesting way, and Binney & Smith Co. has expressed the hope that the trade will find the results of this work to be of material benefit.

It is understood that Mr. Wiegand will make his headquarters at the company's main office—41 East 42nd Street, New York City—but that his work in connection with this department may necessitate spending part of his time abroad.

CRUDE SHIPMENTS FROM NETHERLANDS INCREASE

Declared exports from the Netherlands to the United States during October reached a value of $11,771,000, while in the period January through October total shipments exclusive of gold were valued at $76,736,000 as compared with $50,197,000 in the corresponding period of the previous year, according to cable advices to the Department of Commerce. Diamond shipments were reduced during October and exports of bulbs practically ceased but these losses were more than offset by increased exports of crude rubber.

To Reopen Dunbar Factory

Plans have been made for the reopening of the factory of the Dunbar Rubber Co., Dunbar, W. Va., according to C. E. Siegfried, general manager. He said that the company is being refinanced. The plant had been appraised at $286,000, preferred stock placed at $150,000, bonds at $135,000 and common stock at $150,000.

"We have enough business offered us to put the plant into full production," said Mr. Siegfried. "We plan to work three shifts with 300 to 500 hands to the shift in order to turn out 1,000 tires and 1,500 tubes a day which would be our present capacity. We also have a considerable amount of mechanical goods business and in fact, are offered more business than the plant can possibly handle with the present equipment. However, the amount of business that can be handled and which is offered shows a net profit of $1,000 a day, so that a good return will be made on the investment."

May Raise Equipment Prices

It was recently reported from Cleveland that an advance in the price of original tire equipment to automobile manufacturers is expected to be made immediately. This would undoubtedly result in marking up the F.O.B. prices of cars and trucks from $10 to $125. The contemplated increase to automobile manufacturers would bring the price of original tire equipment in line with prevailing retail prices of tires. The increase will be passed on to the public by automobile manufacturers.

Columbia Fabric to Build

The Columbia Narrow Fabric Co., Providence, R. I., has started work on a large addition to the calendering department. This extension is being built on the south side of the mill and will join the present rubber and calendering departments with the boiler rooms and storage houses. The change has been contemplated for some time.

Triangle Increases Output

According to M. C. Wyatt, general manager, production of the Triangle Tire & Rubber Co., Canton, Ohio, was recently increased to 425 tires a day. The increase was the second in five weeks.

BRITISH DUNLOP MAY ABANDON LABOR PLAN

(Special to THE RUBBER AGE*)*

The cause of the strike of 6,200 workers at the Fort Dunlop Works of the Dunlop Rubber Company in England, which was settled recently, was ostensibly an alteration intended to save time in one of the operations in preparing rubber, but as a similar alteration had previously been applied to other mills without complaint, the stoppage may really be attributed to unrest in the works said to be due to the introduction, over a period, of a number of changes designed to increase efficiency and reduce output costs.

Should the strikers as a body decide to join the Transport and General Workers Union, officials of which have lately been active among them, a unique and interesting experiment in works control which has been in operation for four years, may be brought to a close.

Disputes Began Soon After War

Soon after the war, industrial disputes occurred at Fort Dunlop, and a considerable number of rubber workers joined various unions as a result. In 1921, however, a secret ballot of the workers showed a large majority to be in favor of withdrawing from the unions and adopting a system of collective bargaining within the works by means of a factory council. This organization was duly constituted. It is a joint body consisting of management members on the one side and operative members of both sexes selected from the manufacturing and general departments.

The operative members are elected by ballot by voting divisions into which the Birmingham mills are divided. The basis of representation is one member for each 150 employees in a division. The council meets once a quarter, but may be called together at any time by either side to deal with urgent matters. The operative members elect each year from among themselves not more than 16 representatives to a Joint Works Committee, and sub-committees are also elected for dealing with such matters as welfare work and the administration of canteens and the sick and benevolent fund. Larger questions dealing with wages, hours, and conditions of work have to go before the full factory council. The executive, or joint works committee, meets monthly and at short notice on request.

Plan Worked Smoothly

This plan worked smoothly, and seemed to have provided an effective instrument for an avowed object of establishing relations between management and employees on the "distinct and durable basis of mutual understanding and confidence." The workers had no union subscriptions to pay, matters in dispute could be discussed by those immediately concerned with a full knowledge of conditions in the shop, and the wages paid were admittedly higher than the average for the district.

The Fort Dunlop factory was built in 1915 and is excellently equipped. Competition, however, is very keen and the management find it necessary to take all reasonable measures to obtain the best results from the facilities provided. Every suggestion for speeding up work has for some time been opposed, and the opposition has recently become intense. In February last a mixing machine was altered. The mill has been running continuously since the change, time has been saved, and the actual effort required per unit of material turned out is less. As a result six further mills were altered, and the last three caused the dispute.

Although the men declared they had complained about the speeding up for some time, the management contend they cannot find that the matter was brought before their side of the Joint works committee until some of the men were already on strike. In this manner the council's authority was ignored.

RUBBER JEWELRY

The rubber jewelry, which has been so popular at Deauville and other Continental watering places, has reached the United States. Smart shops catering to the elite who can spare the time to go to Palm Beach and other winter resorts, are now showing earrings, bead chokers and bracelets of colored rubber. The earrings are made of two round loops of brilliant ebonite attached to the screws on top. Bracelets are three rings of different colors held together with a rubber bow or rubber flowers. This jewelry is worn in bathing but hat pins and "fancies" of colored rubber are also in demand.

Shunk Rubber Formed

The L. L. Shunk Rubber Co. was recently formed at Barberton, Ohio, with an authorized capital of $100,000. Incorporators are L. L. Shunk, E. L. Shunk, Myrtle E. Shunk, Harry C. David and Helen J. Barron.

McKinley Rubber Formed

The McKinley Rubber Co., Canton, Ohio, was recently organized with a capital of $50,000 to manufacture tubes from reclaimed rubber made by a new process invented by Charles O. Sipe. Mr. Sipe claims that he will be able to make tubes from reclaimed rubber that will give at least 27,000 miles of service.

"After nearly eight years of study," said Mr. Sipe, "I have accomplished what rubber experts maintained could not be done. With the special fabric tube which we propose to manufacture, I believe we can save at least 25 per cent on costs.

In addition to tubes, the new company will also manufacture tires for baby carriages, toy wagons, etc.; rubber soles and heels; doormats, stair pads; and many rubber novelties. At the present time a small shop is being used by Mr. Sipe at 2422 Tuscarawas W, Canton. Among those interested in the McKinley Rubber Co. are: W. H. Blecker, Roy Shook, Charles Moon, Wendell Herbruck and Floyd E. Welch.

TELLS OF PROSPECTS FOR RUBBER IN PHILIPPINES

Tremendous possibilities for the growing of rubber in the Philippines were pointed out recently by Judge John W. Hausserman, of Manila, vice president of the American Chamber of Commerce of the Philippine Islands, at a recent meeting of the Rotary Club of Akron, which was attended by many rubber manufacturers. Vast areas, Mr. Hausserman stated, would have been under cultivation before this time except for native political propaganda and for Congressional limitations on such development. "Filipinos themselves lack the capital, knowledge and initiative to take the lead," said Mr. Hausserman. "The situation requires American initiative and capital, and I cannot see how Congress can long defer cooperating with American business.

"As for labor problems. Filipino laborers by the thousand have been brought to Hawaii to aid in the sugar industry. There are about 35,000 Filipinos in the Hawaiian islands, and they are considered excellent plantation laborers. With the Philippine Island population of 12,000,000, it is certainly possible to recruit labor forces sufficient to cultivate our rubber plantations."

Pivot Men Entertain Graham

On Tuesday, November 24, at Young's Hotel, Akron, The Pivot Men's Club of the Mason Tire & Rubber Co. entertained T. G. Graham, departing factory manager and Secretary of the Mason company with a chicken and fish dinner. Mr. Graham leaves the Mason organization about December 1st to become associated with The B. F. Goodrich Co. in a responsible factory executive capacity. As a remembrance of the cooperation and amicable association during Mr. Graham's four and one half years connection with the Mason company The Club presented him with a traveling bag and suitcase to match. After the presentation of the gifts, Mr. Graham gave a very interesting reminiscence of his experience in the rubber business. His experiences were an inspiration to all those present. The Club and the whole Mason organization join in wishing him all the success possible in his new connections.

Lavelle Moves Branch

The Lavelle Rubber Co., 320 West Illinois St., Chicago, Ill., recently announced the removal of their Milwaukee office to 215 Grand Ave., Wauwatosa, Wis. The office is in charge of John B. Freye, vice president and resident manager.

Dunlop Sales Gain 300%

Reports of the Dunlop Tire & Rubber Corp., Buffalo, show that the company sold three times as many tires in October as were shipped during the corresponding month of 1924. The company has maintained a sales increase throughout the year of approximately 200 per cent over last year.

FACTORY EQUIPMENT

UEHLING METER RECORDS AMOUNT OF FUEL WASTED

For measuring the heat wasted up the chimney, the Uehling Instrument Co., Paterson, N. J., recently perfected a recording instrument known as the Waste Meter. With its aid, the fuel wasted may be readily determined either in dollars and cents or in B.t.u. or in per cent of the fuel burned during any time interval.

The Waste Meter records the temperature of the escaping flue gases and their percentage of carbon dioxide (CO_2) on the same chart. The corresponding fuel loss for any CO_2 and temperature may be read directly from a table furnished by the manufacturer. One especially important advantage of having the CO_2 and temperature recorded on the same chart is that the engineer is thus enabled to determine whether special efforts were made to increase the CO_2 during heavy firing periods, when the temperature naturally rises.

Minimizing Chimney Loss

To minimize the chimney loss, it is essential to reduce the temperature of the escaping gases as much as possible, but it is even more necessary to increase CO_2 to the practical maximum percentage because the higher the CO_2, the less will be the sensible heat wasted up the chimney, regardless of the kind of fuel burned; furthermore higher CO_2, in itself, reduces the stack temperature materially, a fact that many engineers do not realize.

With the aid of the CO_2 record, it is comparatively easy for the fireman to control the air supply in order to keep the CO_2 fairly constant at any desired percentage. The temperature of the flue gases, however, is dependent upon the rate of driving the boiler, the cleanliness of the boiler heating surfaces and the condition of the baffles. Hence the pyrometer record shows when the soot is blown, when scale is removed from the boiler and it also shows up by-passing of the gases due to leaky or broken-down baffles.

Principle of Operation is Simple

The CO_2 element of the Waste Meter operates on practically the same simple principle as the pyrometer element. The pyrometer element is operated by the varying quantity of air that will flow through an orifice at different temperatures.

For actuating its CO_2 pen, the Waste Meter employs the Apex CO_2 Meter. The latter instrument is very similar in principle to the pyrometer element, excepting that its orifices are both maintained at the same temperature and the changing vacuum between the two orifices depends upon the absorption of the CO_2 constituent of the gas by means of a dry cartridge. The constant suction steam aspirator of the Apex CO_2 meter also develops the suction for the pyrometer element, while at the same time keeping crifice B of the temperature element at 212 degrees Fahr.

The Waste Meter embodies several unique features, such as the entire absence of moving parts, rubber connections or special glassware. It employs no chemical solutions, and is self-checking for accuracy. The records are made almost instantaneously and are continuous.

The Uehling Waste Meter

Goodrich Assigned Tire

The B. F. Goodrich Co., Akron, has been assigned U. S. Patent No. 1,554,370, granted to Irvin R. Renner, and covering a pneumatic tire. The tire has a laminated carcass of oppositely-biased threads and rubber vulcanized in oblate, oval, cross-sectional form. The threads have an angularity, which in the tread portion is less than 40° to the middle circumferential line, tending to maintain the carcass in the oval form when inflated.

Power Representing Foote

The Power Equipment Co., 315 Third Ave., North, Minneapolis, Minn., are now representing Foote Bros. Gear & Machine Co., Chicago, on their industrial gears, spur, worm and herringbone speed reducers.

Patents Rubber Method

Fred Thomas Roberts, Upper Montclair, N. J., was recently granted U. S. Patent No. 1,553,554 on a method of making hollow rubber articles. The method comprises seating sheet rubber stock in the connected cavities of two cooperating molds, the cavities being surrounded by a cutting edge. Portions of rubber are placed in the form of plugs in contact with the molded rubber which lines the connecting portions between the cavities, bringing two cavities thus lined into coaction to enclose the plugs and to cut off the material entirely around the exterior of the article. The articles are subsequently severed intermediate the ends of the plug portions.

Tube Tool Patented

U. S. Patent No. 1,556,279, covering a tool for facilitating the rolling of inner tubes, was recently granted to George W. Allen, Indio, Cal. The tool consists of a handle member, a pair of spaced parallel elongated fingers secured to the handle and between which the tube is to be extended, a bolt fixed at one end to a portion of one finger and extending through the other finger and a spring about this bolt for bearing against the finger for holding it normally parallel with the other.

Fisk Assigned Patents

The Fisk Rubber Co., Chicopee Falls, Mass., was recently assigned U. S. Patent No. 1,556,292 covering a vulcanizing stud for tube making and granted to Melvon A. Marquette. The stud has a hollow body portion with holes through the sides and closed at one end. The Fisk company was also recently assigned a device for expanding endless bands invented by Thomas Midgley and granted U. S. Patent No. 1,556,295. The device consists of an inflatable tube and a plurality of flexible bands disposed across the tube which are secured at their ends to substantially inextensible members.

U. S. Registers "Cavex"

The United States Rubber Co., New Brunswick, N. J. branch, recently registered the trade-mark "Cavex" in the U. S. Patent Office under Ser. No. 216,370. The trade-mark has been used on tires since last April.

Patent Tire Method

Henry M. Lambert, assignor to the Lambert Tire & Rubber Co., Akron, was recently granted U. S. Patent No. 1,558,019 on a method of manufacturing cushion tires. The patent covers the steps which consist in arranging a series of rims adjacent to one another with their axles substantially coincident, covering the mass with an envelope of rubber of the thickness of the desired tire-blank, then cutting the envelope in planes normal to the axis of the rims and between adjacent rims thereby to separate the mass into individual rim-tire blanks.

Maturated (Slab) Rubber

The following article, based on Researches of P. Bruni and T. S. Levi on the nature of the non-rubber components of slab rubber is of considerable importance, and is really of wider interest than its restricted title would suggest. Two or three points brought out in the work are of great interest, such as the accelerating action of valeriamides, the clever artifice devised for separating the acids from the other non-rubber constituents and the powerful accelerating action of the acetone extract of maturated rubber when added to ordinary rubber—The Editor.

By C. C. Davis
Boston Woven Hose & Rubber Co.

IT IS A WELL-KNOWN fact that large quantities of so-called maturated rubber or "slab" rubber are now used with success by the Pirelli Company of Milano, Italy. This rubber is prepared on the Pirelli plantations at Johore, British Malaisia, and at Preanger, Java, by leaving the coagulum in contact with the serum for several days, then pressing and drying in bulk until the slabs contain 20-25% water. They are then transported to the rubber factories and creped before using. This process gives a rubber having a very rapid rate of vulcanization, even when vulcanized with sulfur alone. Whereas, for example, a mixture of ordinary rubber 100, sulfur 8 requires from 120 to 180 minutes at 144° C to cure, maturated slab with the same amount of sulfur requires only 15 to 30 minutes. This acceleration persists unaltered even after washing, crepeing and drying.

In view of the peculiar properties of this type of rubber and the fact that it has already attained success in one of the leading rubber manufactories, a newly published work* of Bruni and Levi of the Pirelli Company on the non-rubber components of maturated slab may be of interest. This is further true because the authors call attention to the *extraordinarily high acidity of this rubber* and it is but recently that Whitby and others have emphasized the importance of the natural acidity of rubber in its influence on the rate of vulcanization and on the quality in the vulcanized state.

Investigations by various authorities have already shown that raw rubber contains considerable acid which can be extracted with water and still more which is extractable with acetone. The most recent of this type of work has been that of Whitby, who has isolated oleic, linoleic and stearic acids from the acetone extract of rubber.

Experiments of Bruni and Levi

Experiments by Bruni and Levi on various types of rubber, including smoked sheets, hard para, latex sprayed rubber, Koga and Massai, were carried out in a manner similar to that of Whitby except for the substitution of absolute ethyl alcohol for acetone. The acidities found by this method were much the same as those found by Whitby. That the acidity was not due to the acetic acid used for coagulating is evident from the fact that neither hard Para nor latex sprayed rubber are coagulated with acid.

Similar tests were then made with maturated slabs from the Pirelli plantations. After extraction with alcohol but without preliminary washing and drying, maturated slab showed an acidity (based on dry rubber) about three times that of smoked sheets. By washing the same maturated slab with cold water or by heating it *in vacuo* at 130° C, without preliminary washing, the acidity was reduced to that of smoked sheets.

This loss of acidity was not accompanied by a decreased rate of vulcanization when cured with sulfur alone, but after extraction with acetone the time of cure was increased nearly five-fold, the extracted rubber curing almost as slowly as some grades of crepes or of smoked sheets.

The investigation was then continued in two directions, analyses being made on the one hand of the distillation products on heating *in vacuo* at 130° as described, and on the other hand of the acetone extract.

From the distillate at 130° *in vacuo* were obtained ammonia, volatile saturated fatty acids, among which acetic acid predominated, and valeric acid. A valeriamide, probably normal valeriamide n-$C_4H_9CONH_2$, was present in the highest fraction and it is probable that the acids in the rubber were present in the form of their amides or their ammonium salts.

Separate experiments with artificially prepared normal— and iso-valeriamide, in which three per cent of each was cured in separate mixtures of rubber 100 sulfur 8, showed that *both valeriamides are accelerators of vulcanization*, normal-valeriamide reducing the time of vulcanization to one-third that required in its absence and iso-valeriamide reducing it to one-half.

Acetone Extract Contained Fatty Acids

The acetone extract of the maturated slab contained a mixture of higher fatty acids which were obtained separately from the remainder of the acetone extract by an interesting *artifice*. The unwashed rubber in the form of thin sheets was rolled up with thin lead foil and the whole extracted in the usual way in a Soxhlet extraction apparatus. An abundant crystalline deposit accumulated at the bottom, which on analysis was shown to be a mixture of the lead salts of the higher fatty acids, with a very small amount of the corresponding amonium salts. This mixture was composed chiefly of lead palmitate and lead stearate, from which free palmitic acid and stearic acid were isolated in almost equal amounts, each being 0.5-0.7% by weight, based on the crude rubber. The higher fatty acids represented therefore about one-fifth or one-sixth of the total acidity of the crude slab.

Though the time of cure of maturated rubber was increased about five-fold by extraction with acetone, by remixing this extract (after drying it at 70° C) with the extracted rubber, the normal rate of vulcanization was restored. Furthermore, *addition of this extract to first latex crepe increased its rate of vulcanization four-fold,* rendering the rubber capable of vulcanizing in only twice the time of unextracted maturated rubber.

To differentiate the components of the acetone extract, the latter was dissolved in a mixture of water and ethyl ether. On filtering and evaporating the two layers separately, it was found that the ether had absorbed about ninety per cent of the total acetone extract. This ether fraction on evaporation was a waxy semi-solid mass, contained 1.75% nitrogen and yielded chiefly higher fatty acids. The latter had little or no accelerating power when added to first latex crepe.

The aqueous fraction on evaporation was a thick liquid with an odor of glue and contained 9.27% nitrogen, but separation and identification of the compounds present was not accomplished. This aqueous extract was a *powerful accelerator*, showing that the characteristic accelerating substances in maturated slab rubber can be extracted from the acetone extract of the crude rubber by water. It is surprising however to note that they cannot be extracted directly from the crude rubber by simple washing with cold water.

The isolation and identification of the numerous substances present in maturated slab rubber is far from easy, but the research is being continued and the authors hope to publish further results dealing with the non-rubber components of maturated rubber.

**Giornale di Chimica Industriale ed Applicata*, Vol. VII, pp. 447-451, August 1925.

An Outstanding Discovery in Rubber Compounding

Properties, Uses and the Method of Production of Catalpo -- Suitable for Inner Tubes, Treads, Solids

THE KAOLIN or china clay deposits of the United States are mainly secondary; that is, the granite on decomposition has been washed away by the action of water and finally spread on a territory at a distance from its primary source. These deposits of kaolin are, therefore, necessarily very mixed in their characteristics. Clays that lay within a mile or so of each other may have the most diverse characteristics, as they may have been deposited from entirely different sources under entirely different conditions at times thousands of years apart, and in transit may have picked up various kinds of impurities.

The use of a clay material in rubber, therefore, has no external characteristics for guidance. Clay simply has to be mixed into rubber in a formula and the stress strain and other data obtained from the resulting cures. In the same deposit there is ever present the risk of the character of the product being changed with the position of the operation. For this reason it is impossible for clay as it has been heretofore produced to give constant results in rubber compounding for any lengthy period.

Charateristics of Good China Clay

The essential characteristics of a china clay as a good reinforcing pigment in rubber are, first, its adhesion to the rubber; secondly, its fineness of particle size or increase in pigment surface, and thirdly its freedom from impurities, grit or otherwise.

The same is true of other reinforcing pigments, for lamp black shows distinct and varied differences from carbon black and even carbon blacks from various sources of natural gas show marked differences. This is further true when carbon black is made under varying conditions of manufacture.

In the manufacture of Catalpo, a superior rubber clay, which has been shown to have excellent basic characteristics, is used. The better the basic material used, the better the results from the resultant Catalpo. Catalpo from there on bears no resemblance to clay or the general clay characteristics in rubber.

To increase the good qualities present in the basic clay, the surface of the pigment is increased by the Catalpo process, that is, the particles of clay are broken down to a very fine dispersion by means of a peptizing agent,—that is chemicals are added which lower the surface tension of the kaolin so that the particles under its influence break down into a very much finer state of division. Crude clay is fed into a series of powerful beater machines. Chemicals and water are fed into these boxes where the revolving beaters cause the clay to beat into a slip, which in the presence of the peptizing agent is quite stabile, that is, the dispersed clay particles come out of dispersion very slowly. The slip is entirely different from the usual suspension of clay in water used in preparing ordinary clay for the general trade, for in these suspensions the clay can be removed with ease, in fact, will settle out with only a few minutes standing. However, in the slip prepared in the manufacture of Catalpo the dispersion is very thorough and stabile so that the sol can be treated to remove very thoroughly all the grit, mica plates, sand, quartz and injurious particles present. The deleterious material, the plate fragments, of mica, quartz, sand, undecomposed granite, etc., can then be very effectively removed, which is impossible in the ordinary manufacture of clay.

The Catalpo slip is then treated with suitable chemicals for precipitation and the water removed by means of filter presses. The filter pressed cake is then dried in drying tunnels under carefully controlled temperature and humidity conditions. After drying to a moisture per centage below one-half of one per cent, the clay is ground in an Impact Pulverizer to a powder below three hundred mesh.

Catalpo as thus prepared is a white impalpable powder which shows no grit to any test. It disperses easily into rubber or Latex and does not coagulate Latex as carbon black does. In other words, its particle size is of the colloidal order. Even dispersed into oil or pure rubber in small amounts it is practically invisible. In large amounts it gives excellent physical characteristics to the compounded rubber, in fact compounds containing 70 parts of Catalpo to 100 parts of rubber have given tensiles over 4,000 lbs. and abrasion value approximating those of carbon black itself.

When proper amounts of stearic acid (2½% to 3½% has been generally found most satisfactory) are added, the Catalpo disperses still more easily and thoroughly into the rubber compound and even better physical characteristics are obtained. Oddly enough, these improvements are more marked in the case of Catalpo than with any other pigment known by reason of its very high colloidal property. A further point of the utmost value to the rubber compounder in the future is the fact that Catalpo's colloidal property is such that energy in the shape of tensile strength can be converted into distensibility and vice versa, by suitable treatment. This is one of the strongest points in favor of this material because up to the present day to achieve these results no single pigment has been found. For instance, the above mentioned mix of 100 rubber, 70 Catalpo, accelerator and sulfur, can be made to give a distensibility of the order of 800% and a high tensile strength against a tensile strength of over 4,000 lbs. and a distensibility of only 450%.

Does Not Stiffen Rubber

This material is being used with success in inner tubes up to amounts heretofore believed impossible with a pigment. It does not appreciably stiffen the rubber and gives breaking tensiles of 500 to 600 lbs. greater than other clays. Therefore, it gives a very elastic and strong tube which ages excellently.

A factor in favor of this new pigment and one of particular interest to the rubber industry, which must look ahead for its raw materials, is that it does not in any way waste the resources of the country. The resources of carbon black and zinc oxide are limited as every rubber man well knows. Therefore, as other pigments will undoubtedly increase in price, Catalpo can be supplied to the trade to meet the tonnage required without fear of shortage or such increase in price.

Data from Moore & Munger, N. Y.

Compositions from Rubber Latex

British Patent No. 232,015

Each gallon of latex which contains approximately three and one half pounds of rubber, is mixed with three and one half ounces of lead oxide or lead sulphide or an equivalent proportion of powdered sulphide or oxide of antimony, magnesium or zinc. Any desired filler may also be added, such as cement or kaolin. About one ounce of sulphur is also admixed with the rubber batch and an aniline coloring matter may also be added. The mixture is coagulated by stirring for a few minutes and is then passed between washing rolls and sheeted. Before final drying the material may be rendered less inflammable and non-adhesive by treatment with a solution of sodium silicate (water glass). The product does not need vulcanization and is of use for tiling and roof covering and as a substitute for leather.

VULCANIZATION & ACCELERATORS

By Andre Dubosc

PART II (*CONTINUED*)

Natural and Mineral Accelerators

An Account of Experiments Made by Stevens with a Number of Samples to Determine the Catalytic Action of Derivatives which Result through the Decomposition of Nitrogeneous Matter in Rubbers

IN order to make an accurate examination of the catalytic activity of these nitrogeneous derivatives, it is necessary to make them act on a rubber gum which has first been freed from all its natural insoluble nitrogeneous ingredients. Stevens instituted a number of experiments on this matter. In this series of investigations he worked only with a rubber gum which had been freed from its impurities, that is, its insoluble matter. This was accomplished by leaving the gums in contact with benzine for a period of two years. The rubber was kept in the dark all this time. The clear part of the solution was siphoned off and then subjected to spontaneous evaporation. It yielded a gum which was pure. The initial rubber used in these experiments was a non-smoked sheet rubber which contained 0.48 per cent of nitrogen. After the insoluble matters had been removed, the rubber contained no more than 0.07 per cent of nitrogen. The purified gum was then mixed with sulphur in the proportion of 10 per cent on the weight of the rubber. Six different samples were then prepared with this rubber.

Tests on Six Different Samples

The six different samples which were employed in this series of experiments were composed as follows.

1. The first sample included the non-purified crude rubber.
2. The second sample was made with purified rubber which had been deprived of all its protein matters.
3. The third sample was made from purified rubber which had been deprived of all of its protein matter, and to which there was added three per cent of proteins which are characterized by being coagulable by heat. These heat-coagulable proteins were obtained from the flocculent precipitate which is recovered by concentrating the serum derived from a sheet of moist rubber.
4. The fourth sample was made from rubber which had been purified and deprived of all of its protein matter, to which there were then added 1½ per cent of serum evaporated to dryness, after the flocculent precipitate, mentioned above, had first been removed.
5. The fifth sample was also composed of purified and protein-matter free rubber, to which there was then added three per cent of methyl inosite. This compound has been recovered from the rubber serum. The percentage in which this substance was employed represented the maximum amount of crystallizable substances which could be found in sheet rubber.
6. The sixth and last sample was made from a rubber gum which contained a considerable proportion of protein matter. This protein matter was recovered from the residue obtained from the benzine solution after the clear portion of the solution had first been removed. This part of the solution is very rich in insoluble matters.

These samples were all vulcanized under exactly the same conditions, that is for a period of three hours at a temperature of 135 degrees C. The results obtained are enumerated in the following tabulation:

	1.	2.	3.	4.	5.	6.
Weight of rupturing load in grams per square millimeter	1260	590	700	940	280	810
Elongation, original length being equal to 100	1010	1160	1040	860	1100	630
Tension product	136	68	73	81	32	51
Coefficient of vulcanization	3.66	1.60	3.08	5.68	1.32	6.44
Nitrogen in the crude rubber in percentage	0.48	0.05	0.57	0.35	0.05	1.81

The one result that merits special attention is the coefficient of vulcanization. The weights which resulted in the rupture of the rubber are less interesting, for they are influenced by the degree of over or under-vulcanization or by changes that take place in the rubber itself. The results show in a very clear manner the effect of the various nitrogeneous constituents on vulcanization and on the properties of the vulcanizates.

In the case of sample No. 2 it is seen that the removal of the insoluble nitrogeneous ingredients resulted in a reduction in the effectiveness of the vulcanizing action. It brought about a decrease in the average resistance to rupture and increased the percentage elongation.

Then again in the case of No. 3 addition of insoluble substances, which substances were obtained by evaporation from the serum mother liquor, increased the effectiveness of the vulcanization. These substances appeared to have acted as the proteins that are found in the regular crepe rubber.

Coefficient of Vulcanization

The coefficient of vulcanization is essentially the same as that of the crude rubber gum. The effects of these insoluble nitrogeneous matters on the rubber gum which had been first purified and freed from its protein content was such that there was every reason to believe its action on rubber which had not first been purified would be considerable.

In the case of No. 4 addition of a soluble nitrogeneous substance had the same effect on the vulcanization of the rubber as the insoluble nitrogeneous substance which was added to No. 3. The effect on vulcanization was indeed even more accentuated for the coefficient of vulcanization of 5.68 is superior to that obtained with the crude rubber gum, which was 3.66.

The action of this soluble nitrogeneous substance was no doubt due to the high proportion of products of the decomposition of protein matters. The remainder of the substance is constituted of methy inosite.

In the case of sample No. 5 addition of methyl inosite had the effect of retarding the rate at which the rubber is vulcanized.

Sample No. 6 contained a large excess of protein matters, of the nature that are found in the rubber in the crude state. The effect of these substances was to increase the effectiveness of the vulcanization. Sample No. 6 was over-vulcanized. However in the case of No. 6 the nitrogen content was 1.81 per cent, while in the case of sample No. 4 the nitrogen content was only 0.35 per cent. From this it may be concluded that the effect of a higher content of nitrogeneous matters on the coefficient of vulcanization and on the physical charac-

teristics of the vulcanizate, in the case of sample No. 6, was no greater than that of a low content in the case of No. 4. This shows in a very clear fashion the difference that exists between the action of insoluble nitrogeneous substances and that of soluble nitrogeneous matters.

The conclusions that can be drawn from this series of experiments, according to Stevens, are that the protein matters facilitate vulcanization and that those found in the natural state in rubber are required so that vulcanization may be accomplished under reasonable conditions of time and temperature. On the other hand, there exists along with these compounds, nitrogeneous substances of simpler form, which were probably formed during the decomposition of the protein matters under the action of micro-organisms, and which have the power to act as accelerators, having a greater accelerating capacity than the proteins themselves.

In fact it is possible to establish the fact that a crepe rubber which has been manufactured with a matured coagulant vulcanizes more rapidly than the ordinary crepe rubber. This is due to the fact that the first sample of crepe rubber must contain quite an appreciable amount of an accelerating base, which exists as such in the rubber, although the rubber had been washed a number of times.

Isolation of Natural Accelerators

Stevens has studied the problem of the isolation of the natural accelerators of the vulcanization. He instituted a series of experiments along these lines in which a sample of rubber was first cut into small pieces and then subjected to digestion for several days. The digestion was effected either in water or in a sulphuric acid solution of very slight concentration. The quantities of extracts obtained in this fashion were found to be much greater in the case of the rubber which had first been matured than in the case of the rubber prepared from the rubber latex in the ordinary way.

The extraction liquor obtained from treating a pale crepe rubber by subjecting it to digestion with water for ten days was much less colored and yielded only a small amount of precipitate when treated with tannic acid. This was in the neighborhood of 0.03 per cent. The extraction liquor obtained from the treatment of a sample of crepe rubber which had first been matured, on the other hand, was colored a deep brown, and when treated with tannic acid it yielded an abunant precipitate. The amount of precipitate was approximately 0.26 per cent.

Interpretation of Results

It is evident that these figures do not represent the entire amount of protein substances that are present in the rubber gums, either manufactured in the ordinary manner or first subjected to maturing, that is the entire amount of proteins which are soluble in water. For in order to isolate all these insoluble protein matters it is essential that the extraction be repeated a number of times, as they will not dissolve out of the rubber gum in a single extraction with water. These figures indicate just this, that they may be used to exemplify the relationship that exists between the two kinds of rubber as far as the proportions of these materials contained in them are concerned.

After the nitrogeneous substances, which are most complex in structure, have been removed by precipitating the protein matters with tannic acid and barium hydroxide, the quantity of organic bases which remain in the extracts was determined by precipitating them with phospho-tungstic acid.

The quantities of phospho-tungistic acid precipitates obtained in this fashion were 0.0006 per cent in the case of pale crepe rubber and 0.0580 per cent in the case of matured crepe rubber.

When the rubber was extracted with dilute sulphuric acid of two per cent concentration, after the protein matters had first been extracted with tannic acid, the products which were precipitated with phospho-tungistic acid were as follows: in the case of pale crepe rubber, 0.002 per cent and in the case of the matured crepe rubber, 0.032 per cent.

These figures, which were derived from a single extraction of the rubber gum, are evidently comparative only. They do not represent the total amount of extractable substances contained in the samples treated.

With the idea in mind of measuring the potency of the accelerating action of the organic bases formed during putrefaction of the serum, Stevens carried out the following experiment: He used a concentrated form of rubber serum, obtained after coagulation of the rubber. Ninety grams of pale crepe rubber were utilized to make a control sample which was called sample No. 1. The rubber was mixed with 10 grams of sulphur under conditions which will be explained hereinafter. Thus in the case of sample No. 1 90 grams of pale crepe rubber were mixed with 10 grams of sulphur. In the case of sample No. 2, crepe rubber was used that had been matured and dried in the air.

Sample No. 3 consisted of crepe rubber which had been washed between rollers and then dried in air. Sample No. 4 was made from crepe rubber to which there had been added 1½ grams of concentrated serum, after the precipitated protein substances had been separated by filtration. Sample No. 5 consisted of crepe rubber to which there had been added 0.14 gram of organic bases which had been isolated from the concentrated serum with phospho-tungistic acid. Sample No. 6 consisted of crepe rubber to which there had been added 1.2 grams of the phospho-tungistic acid compounds that are obtained by treatment of the solution of bases with this acid. Sample No. 7 was made from crepe rubber to which there had been added 0.59 gram of the organic bases which are derived from 10,000 liters of rubber latex. These bases are soluble in alcohol. Sample No. 8 consisted of crepe rubber to which there had been added one gram of paranitrosodimethylaninline, which is an organic accelerator, commonly called accelerene and which was first used by Peachey. These various samples of rubber were then vulcanized for varying periods, for one, two and three hours, at a temperature of 135 degrees C. The results obtained are as follows:

Results of Experiments

	1.	2.	3.	4.	5.	6.	7.	8.
Samples vulcanized for one hour.								
Breaking load in grams per square millimeter	370	950	830	560	430	160	770	1030
Elongation, when initial length is 100	1170	1070	1090	1090	1080	990	1070	770
Tension product	37	101	596	58	47	16	81	79
Coefficient of vulcanization.	1.16	2.73	2.42	1.93	1.57	1.28	2.69	5.31
Sample vulcanized for two hours								
Breaking load in grams per square millimeter	800	1620	1530	1030	870	600	1690	"
Final elongation, initial elongation equal to 100.	1090	960	988	1010	1000	1060	990	"
Tension product	87	155	151	164	87	63	157	"
Coefficient of vulcanization.	2.67	5.24	5.69	3.47	3.81	2.75	5.29	"

It is easy to follow out the effects of the accelerating natural bases contained in samples Nos. 4 to 7, or of the accelerene on sample No. 8 by examining the coefficient of vulcanization. The effect of the accelerene accelerator is so great that sample No. 8 is vulcanized within one hour. It is well to call attention to the fact that the proportion of the accelerator in the rubber mixture is only one per cent, while the highest percentage of natural accelerator in the rubber sample, as found in sample No. 7, is 0.59 per cent.

In the case of the sample in which accelerene was employed as the accelerating agent, the coefficient of vulcanization thus obtained is 5.31 in one hour, while the natural accelerator gives a coefficient of 2.69 also within one hour, and within a vulcanization period of two hours, the coefficient of vulcanization reaches as high as 5.29.

The artificial accelerator thus appears to be a little more potent than the natural accelerator, but the difference, when all other conditions remain the same, is very slight. It is also possible to reach the following conclusions:

(To Be Continued)

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THE MARKET PLACE Section Continued on Second Page Following.

MARKETS

Cottons and Fabrics

NEW YORK, Dec. 1, 1925

The outstanding features of the reports published by the Department of Agriculture and by the Census Bureau on November 21 were a probable United States cotton production of 15,298,000 bales, of which 12,249,935 bales had been ginned prior to November 14, and a statement which hinted at the possibility that, owing to frequent rains having materially lowered the grade of open cotton, some of it might be left unpicked.

The ginning figures, which accorded the greatest attention, showed that during the two weeks ended November 14 only 1,051,000 bales had been ginned, against a total of 1,447,000 bales in the corresponding period of 1924. The comparison is still more unfavorable when made with reference to the Period Oct. 1-Nov. 14, during which time ginnings only amounted to 5,148,225 bales, against 6,634,567 bales in 1924. An unusually large quantity of cotton was ginned prior to October 1 but the latest Government crop estimate will only be reached if, during the remainder of the season, 3,048,000 bales pass through the gins, compared to 2,477,000 bales last year. These figures, taken into consideration with the tendency to leave badly damaged unpicked, have served to create the impression that the highest crop estimates of the season have been seen, a view which was largely responsible, it is said, for the wave of short covering which followed the publication of the reports.

Information from Southern spot markets indicates a somewhat less active demand, but despite the large amount of cotton which has still to be marketed there is a noticeable absence of selling pressure, reflecting the improved financial condition of producers, as a result of sales already made, and the probability that weak holders have now protected themselves in the contract markets.

This belief appears to indicate that the world's consuming capacity and the probable supply of commercial desirable cotton have not received adequate consideration and, on this account, no immediate advance may occur. This situation, however, in view of expanding consumption prospects and of the high percentage of the crop which consists of very low grades is inherently bullish. A. Norden & Co., New York, a large factory, thinks that although it may be well to avoid undue enthusiasm, an upward trend will ultimately develop.

New York Prices

	Open	High	Low	Close	Close Nov. 16
December	20.19	20.25	20.08	20.25	20.48
January	19.46	19.63	19.43	19.56	19.78
March	19.52	19.63	19.45	19.59	19.95
May	19.20	19.29	19.10	19.27	19.67
July	18.84	18.93	18.75	18.90	19.30

TIRE FABRICS

It is estimated that 1925 consumption of tire fabrics will total 175,000,000 pounds, an increase of 35,000,000 pounds over 1924. The increased consumption is partly explained by balloon tires and four-ply fabric. It is said that more than 500,000 pounds has yet to be purchased and a similar amount of square woven has yet to be contracted for of the large quantity inquiries during the last two weeks. These inquiries totaled 2,500,000 pounds. A great many fabric mills are now supplied with enough business to keep comfortably running through the first quarter of next year. The price basis has strengthened slightly in some quarters.

CORD FABRICS

Combed Sakellarides		Nominal	
Combed Peeler	lb.	Nominal	
Carded Peeler		.48 @	.51
Combed Egyptian uppers	lb.	.66 @	.70
Carded Egyptian uppers	lb.	.58 @	.62

SQUARE WOVEN

17¼-ounce Egyptian uppers, combed	lb.	Nominal	
17¼-ounce Egyptian uppers, carded	lb.	.56 @	.59
17¼-ounce Sakellarides, combed	lb.	Nominal	
17¼-ounce Peeler, carded	lb.	.47 @	.48

Ducks—The past two weeks were reported to have netted a few mills a fair amount of business. There was some keen bidding for the orders and a few rather low quotations came out for some of the standard grades. A few mills are sold to the close of the year .

Burlaps—During the past fortnight the trade was disposed to cover its requirements lightly, some interest being manifested in January-March goods. With traders disposed to hesitate about covering, sellers needed to make concessions to dispose of burlaps. A rumor that South America was offering goods in the market was heard, but could not be confirmed.

SHEETINGS

40-inch	2.50-yard	yd.	.14¼	@	—
40-inch	2.85-yard	yd.	.12½	@	—
40-inch	3.15-yard	yd.	.13½	@	—
40-inch	3.60-yard	yd.	.11¾	@	.12
40-inch	3.75-yard	yd.	.10¾	@	—
40-inch	4.25-yard	yd.	.09	@	—

DUCKS

Belting	lb.	.40	@	.42
Hose	lb.	.40	@	.42
Enameling	lb.	.40	@	.45
Shoe Ducks	lb.	.41	@	.46
Single filling	lb.	.18	@	.20
Double filling	lb.	.20	@	.21½

BURLAPS
(Carload Lots)

7½-ounce	40-inch	9.00	@	9.05
8 -ounce	40-inch	9.50	@	9.55
10 -ounce	40 inch	11.80	@	11.90
10½-ounce	40-inch	12 00	@	12.05

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MOLDS & CORES—Tire building machines; tire finishing stands; tubing machines; hydraulic presses.
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FABRICS—Tire fabrics, Egyptian—Peeler, Karded and Combed, Cord and Square.
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HARD RUBBER, quality hard rubber goods of every description.
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We specialize in fine Grey, Black and Red Reclaimed Rubber.
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RECLAIMED RUBBER—Uniformity, reliability, cleanliness.
Pequanoc Rubber Co.
Butler, N. J.

THE MARKET PLACE Section Continued on Second Page Following.

Reclaimed Rubber

NEW YORK, Dec. 1, 1925

With crude rubber at new heights and scrap rubber rising, reclaimed was bound to increase in price. The quotations given below reflect these higher prices. Demand from rubber manufacturers continues in good force and reclaimers are still unable to make prompt shipments in any quantity. This condition is expected to continue well into 1926.

Friction (Uncured)			
No. 1	lb.	.70 @	.75
No. 2	lb.	.55 @	.60
High Tensile Black			
Super-Reclaim No. 1	lb.	.35 @	.36
" " No. 2	lb.	.20 @	.21
Shoe			
Unwashed	lb.	.10¾ @	.11¼
Washed	lb.	.13¾ @	.14¼
Tube			
No. 1 (Floating)	lb.	.30 @	.32
No. 2 (Compounded)	lb.	.20 @	.22
Tires			
Black unwashed	lb.	.11¾ @	.12
Black, washed	lb.	.12¾ @	.13
Black, selected tires	lb.	.13 @	.13¼
Dark Gray	lb.	.16½ @	.17
Light Gray	lb.	.18 @	.19
White	lb.	.25 @	.26
Track, Heavy Gravity	lb.	.11 @	.12
" Light Gravity	lb.	.12¼ @	.12½
Miscellaneous			
Mechanical Blends	lb.	.09 @	.10
Red, High Grade	lb.	.24 @	.25

Scrap Rubber

NEW YORK, Dec. 1, 1925

A dealer boom in scrap prices during the last week broke with a sharp slump in prices which, however, affected only those grades which had been pegged up. The decline was of some benefit inasmuch as it brought back into the market reclaimers who had withdrawn when the boom started. A fair amount of tonnage was booked at the lower levels. Tires, as a class, as they were not subject to an advance, have changed but little. Reports from some quarters said that dealers were bidding higher than reclaimers for scrap and that it was becoming more difficult to obtain stocks much below quotations.

Auto tire peelings		.01½ @	.01¾
Standard White auto	ton	35.00 @	40.00
Mixed auto	ton	24.00 @	25.00
Bicycle tires	ton	12.00 @	13.00
Clean solid truck tires	ton	45.00 @	50.00
Boots and shoes		.01½ @	.01¾
Arctics, untrimmed		.01½ @	.01¾
Arctics, trimmed		.02 @	.02¼
Inner tubes, No. 1		.11 @	.11½
Inner tubes, No. 2, compounded		.09 @	.09½
Air Brake Hose	ton	18.00 @	20.00
Rubber hose	ton	15.00 @	17.00

Crude Rubber

NEW YORK, Dec. 1, 1925

After several quiet days which followed the publication of our last report during which the market was quiet and firm dealers played the role of spectators, prices were advanced quite sharply on the 20th. Spots advanced about three cents a pound and forwards from three to four cents. Next day the market was dull and a shade easier. Trading of importance was lacking, both in spot and future positions. Although there was some fairly brick trading in 1926 positions on the 23rd, the market desmlined. There was only a four-cent differential between spot and April-June, and there was every sign that the market in futures was due for further advances.

Factory support of 1926 positions continued. There was not much consuming inquiry for the last six weeks of 1925. Prices dropped both in London and New oYrk on the 25th. The change wos four cents on spot and three cents on April-June. The final two hours of trading found a great many buyers in the market and there was a slight recovery. The market rebounded sharply the next day folowing strong sessions in London. There were buyers of ribs in practically all positions during the day, but less selling interest. The strength of the London market seemed to frighten sellers on rubber which would have to be covered later. Actual holders were strong in the opinion that the market deserved confidence and that higher prices could be realized on all forward positions later on.

Inquiry was reasonably active at the close of the week in th New York market but business was insufficient to bring about any further advance. Off grades were in some request. Paras were firm but quiet with little spo wild rubber available. The bulk of the business in Paras during the period under review was on a shipment basis.

Firmness seems likely to continue for some time and no real break in the market is in prospect. Importers and dealers are buying virtually upon factory orders only. Therefore, the withdrawal of this support would probably lead to some sort of break in values.

November arrivals are setimated at over 37,000 tons ,and it is expected that December shipments will also reach a high total.

NEW YORK MARKET

Plantations—			
Ribbed Smoked Sheets			
Spot	1.07¼ @		1.08½
December	1.06¾ @		1.07¾
January	1.06 @		1.07¼
Jan./March	1.05½ @		1.06½
April/June	1.01½ @		1.03
First Latex, crepe spot	1.08 @		1.09½
Amber Crepe, No. 2, spot	.99 @		1.00
" " No. 3,	.98 @		.99
" " No. 4,	.96 @		.98
Brown Crepe, Rolled	.99 @		1.00
" " Clean, thin	1.01 @		1.03
" " Specky	1.00 @		1.01
Pontianac—			
Bangermassin	Nominal		
Palembang	Nominal		
Prime Pressed	Nominal		
Serawak	Nominal		
Paras—			
Up-river Fine	.99 @		1.00
" Medium	.92 @		.94
" Coarse	.73 @		.74
Islands, Fine	.80 @		.82
Acre Bolivian, fine	1.00 @		—
Tapajos, fine	.85 @		.87
Cut Beni Bolivian, fine	.89 @		.91
Caucho Ball—			
Upper, shipment	.74 @		—
Centrals—			
Corinto, scrap	.62 @		.63
Esmeraldo, sausage	.74 @		.75
Guayule, w and d	.78 @		—
Africans—			
Benguela, No. 2	Nominal		
Congo, upper, black	Nominal		
" " red	Nominal		
Kassai, Prime Red	Nominal		
Balata—			
Block, Columbia	.54 @		.55
" Cuidad	.63 @		.64
Surinam, sheet	.75 @		.76
Gutta Percha—			
Siak	.24 @		.26
Red Macassar	3.50 @		—
Chicle—			
Mexican, Yucatan	.58 @		.68

LONDON MARKET

Standard Ribbed Smoked Sheets—	
Spot	54 d
December	54
January	53½
Jan./March	53
April/June	50
April/June	47½

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AMERICAN COTTON FABRIC CORPORATION

The Market Place

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MOLDS & CORES
The Akron Rubber Mold & Machine Co.
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RECLAIMED RUBBER
A standardized grade for every requirement.
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"42 Years Serving the Industry Solely as Reclaimers"

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Mills, Calenders, Grinders, Washers
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RUBBER—Crude and scrap, all grades.
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SPEED REDUCERS
IXL Speed Reducers, Cut Gears, Micarta Pinions and Timing Gears, Flexible Couplings, Gear Racks, etc.
Foote Bros. Gear & Mach. Co.
238-248 N. Curtis St., Chicago, Ill.

VULCANEX OIL
A new pine product useful in reclaiming highly vulcanized rubber to produce a soft and workable reclaim.
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RUBBER SCRAP
Always Buying and Selling
Rubber Waste, Cured and Uncured, Hard Rubber, Balata, Gutta Percha.
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STRIP CUTTING MACHINES
For cutting all rubber, composition and plain or impregnated fabrics.
Cameron Machine Co.
61 Poplar St., Brooklyn, N. Y.

WHITING & PARIS WHITE
manufactured from *Genuine English Chalk* and *Cliffstone*—no adulterations.
Southwark Mfg. Co.
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RUBBER SOFTENERS
LIQUID RUBBER for Frictions, Cements and Tapes;
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SULPHUR—*"Tire"* Brand Superfine; *"Tube"* Brand Velvet; quality Sulphur for the rubber trade.
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American Zinc Sales Co.
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Pierce Bldg. St. Louis
Prudence Bldg. New York

RUBBER SUBSTITUTES
White, brown and black.
Carter Bell Mfg. Co.
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TAR—PINE, RETORT, KILN
All grades for the rubber manufacturer.
Pensacola Tar and Turpentine Co.
Gull Point, Florida

ZINC OXIDES — Including KADOX and "Albalith."
The New Jersey Zinc Sales Company
New York Pittsburgh Chicago
Cleveland San Francisco

CHEMICALS & COMPOUNDING INGREDIENTS

Accelerators — Colors — M.R. — Compounding Ingredients
Softeners — Vulcanizing Ingredients — Rubber Substitutes

NEW YORK, December 1, 1925—Contract withdrawals during November were very satisfactory when it is considered that November is usually a slow month. This year however, production suffered only slightly with the result that staple materials such as blacks, clay, mineral rubber and zinc oxides suffered little change. Demand has been good in other items and producers are looking for a firm month in December with a full-time resumption after the holidays. Prices show little change, a firmness being noted which indicates present stability. Quotations follow:

ACCELERATORS

Organic			
Aldehyde ammonia, crystals	lb.	$ .90	@ .93
Aniline oil, drums	lb.	.17	@ .17½
Di-Ortho-Tolylguanidine	lb.	1.10	@ 1.13
Diphenylguanidine	lb.	.95	@ .98
Ethylidene aniline	lb.	.60	@ .65
Excellerex	lb.	.35	@ .40
Formaldehyde-Aniline	lb.	.40	@ .42½
Grasselerator 102	lb.	.80	@ .82
Grasselerator 552	lb.	4.80	@ 5.00
Hexamethylene-tetramine	lb.	.80	@ .82½
Paraphenylenediamine	lb.	1.25	@ 1.30
Piperidine-Piperidyldithio-Carbamate	lb.	4.80	@ 5.00
Super-Sulphur No. 1	lb.	.50	@ —
Super-Sulphur No. 2	lb.	.18	@ —
Tensilac, No. 41	lb.	.65	@ —
Thiocarbanilide, kegs	lb.	.25	@ .32
Triphenylguanidine	lb.	.70	@ .75
Tuads	lb.	4.50	@ 5.00
Vulcone	lb.	.75	@ .79
Zimate	lb.	5.00	@ —
Inorganic			
Lead, sublimed blue	lb	.10	@ .10½
Lead, white	lb.	.10¾	@ —
Litharge, domestic	lb.	.11¾	@ .12¼
Lime, superfine	lb.	.01½	@ .02
Magnesia, calcined, light	lb.	.24	@ .25
extra light	lb.	.40	@ .45
heavy	lb.	.04	@ .06½

COLORS

Blacks			
Arrow "Aerfloted"	lb.	.08½	@ .12½
Bone Black	lb.	.05½	@ .11
Carbon "	lb.	.08	@ .12
Drop "	lb.	.07½	@ .14
Ivory "	lb.	.12	@ .45
Lamp "	lb.	.12	@ .40
Microflex	lb.	.09	@ .13
Thermatomic carbon	lb.	.05	@ —
Blues			
Cobalt	lb.	.21	@ .26
Prussian	lb.	.34	@ .35
Ultramarine	lb.	.08	@ .35
Browns			
Iron oxide	lb.	.02¼	@ .06¼
Sienna, Italian	lb.	.04	@ .14
Umber, Turkey	lb.	.04	@ .06
Vandyke, domestic	lb.	.03	@ .03½
Greens			
Chrome, light	lb.	.28½	@ .30
medium	lb.	.30	@ .32
dark	lb.	.31	@ .34
commercial	lb.	.09	@ .10
Cromium Oxide, bbl.	lb.	.35	@ —
Reds			
Antimony crimson, 15/17 F.S.	lb.	.43	@ .45
sulphur free	lb.	.46	@ .49
golden, 15/17 F.S.	lb.	.17	@ —
pentasulphide, pure,	lb.	.35	@ .38
15/17 F.S.	lb.	.33	@ .36
red sulph.15-17F.S.	lb.	.16	@ .20
Indian English	lb.	.11	@ .15
Oximony	lb.	.13½	@ —
Para toner	lb.	.90	@ 1.00
commercial	lb.	.13½	@ .14½
Red oxide, reduced	lb.	.04	@ .12
pure	lb.	.11	@ .15
Toluidine toner	lb.	1.85	@ 2.10
Venetian red	lb.	.01½	@ .05
Vermillion, quicksilver, English	lb.	1.50	@ 1.55
domestic	lb.	.15	@ .25
Whites			
Albalith	lb.	.05⅞	@ .06⅛
Aluminum bronze		.55	@ 1.20
Lithopone, Akcolith	lb.	.05⅝	@ .06
Litnopone, Azolith	lb.	.05⅝	@ .06⅛
Zinc Oxide—American Process XX red	lb.	.07½	@ .07¾
Kadox, black label, kegs	lb.	.10⅝	@ .11⅛
blue " " "		.09⅝	@ .10⅛
red " " "		.08⅝	@ .09⅛
American Azo: ZZZ (lead free)	lb.	.07¼	@ .07¾
ZZ (under 5% leaded)	lb.	.07	@ .07½
Zinc Oxide—French Process White seal	lb.	.12⅝	@ —
Green seal	lb.	.11⅛	@ —
Red seal	lb.	.10⅛	@ —
Yellows			
Chrome, light		.18½	@ .20
dark and medium	lb.	.18½	@ .20
Cadmium Sulphide	lb.	1.20	@ 1.50
Ocher, French medium	lb.	.03¼	@ —
domestic	lb.	.01¾	@ .02½

COMPOUNDING INGREDIENTS

Aluminum Flake (f.o.b. plant)	ton	21.85	@24.50
hydrate light	lb.	.16½	@ .17
Ammonia carbonate	lb.	.17½	@ .19
Asbestine	ton	14.50	@18.50
Barium carbonate	ton	54.00	@56.00
Barium Dust	lb.	.05	@ .06
Barytes southern off-color,	ton	12.00	@18.00
Western prime white	ton	22.00	@23.00
imported	ton	27.00	@34.00
Basofor	lb.	.04½	@ —
Blanc fixe dry f.o.b. works	lb.	.03¾	@ .04
Carrara filler	lb.	.01¾	@ .02
Chalk, precip., extra light	lb.	.04	@ .04¼
heavy	lb.	.03¼	@ .04
Clay, China, domestic	ton	15.00	@25.00
Catalpo (fact.)	ton	35.00	@38.00
Dixie	ton	20.00	@35.00
Blue Ridge, Dark	ton	9.00	@ —
" " Light	ton	12.00	@ —
Langford	ton	12.00	@22.00
Glues, extra white	lb.	.20	@ .29
medium white	lb.	.18	@ .24
common bone	lb.	.11	@ .14
Graphite flake, bbls.	lb.	.06½	@ .12
Infusorial earth, powdered	ton	23.00	@25.00
bolted	ton	15.00	@20.00
Liquid latex	gal.	3.00	@ —
Magnesia, carbonate	lb.	.10½	@ .11
Mica, powdered	ton	65.00	@80.00
Rotten Stone (powdered)	lb.	.02½	@ .04½
Soapstone, powdered	ton	15.00	@22.00
Starch, powdered	cwt.	3.81	@ —
Talc, domestic	ton	16.00	@18.00
Terra Alba	cwt.	1.25	@ 2.00
Tripoli, white	lb.	.02	@ .02¼
Whiting, commercial	cwt.	1.00	@ 1.15
gilder's bolted	cwt.	1.25	@ 1.35
English cliffstone	cwt.	1.50	@ —
Paris whiteAmerican	cwt.	1.25	@ 1.50
Quaker	ton	13.00	@15.00
Sussex	ton	8.00	@10.00
Wood pulp XXX	ton	35.00	@ —
" " X	ton	25.00	@ —

MINERAL RUBBER

Genasco (factory)	ton	50.00	@52.00
Granulated M.R.	ton	33.00	@ —
Hydrocarbon, Hard	ton	29.00	@ —
Hydrocarbon, Soft	ton	29.00	@ —
320/340 M.P. hydrocarbon (c. l. factory)	ton	47.00	@52.00
300/310 M.P. hydrocarbon (c. l. factory)	ton	42.00	@47.00
Paradura	ton	70.00	@72.50
Robertson, MR, solid	ton	35.00	@75.00
M.R. (gran)	ton	42.00	@80.00

SOFTENERS

Acids			
Acetic, 28%	cwt.	3.12	@ 3.37
Cresylic, 97%	gal.	.54	@ .60
95%		.53	@ .58
Muriatic, 20%	cwt.	.90	@ 1.00
Nitric, 36 degrees	cwt.	4.75	@ 5.00
Sulphuric, 60 degrees	ton	10.00	@11.00
66 degrees	ton	14.00	@15.00
Tartaric, crystals	lb.	.29	@ —
Alkalies			
Caustic soda, 76%	cwt.	3.20	@ —
Soda ash, 58% C.L.	cwt.	1.43	@ 1.45⅛
Oils			
Castor, c. 3 bbls.	lb.	.14½	@ —
Corn, crude, bbls.	lb.	.12	@ —
refined	lb.	.13	@ —
Cottonseed, crude		.09	@ —
Glycerine, C.P. drums	lb.	.25	@ .25½
Linseed,Raw C.L.bbl.	gal.	1.20	@ —
Liquid Rubber	lb.	.12	@ —
Palm, Lagos		.09½	@ .09¾
Niger	lb.	.09⅜	@ —
Peanut, domesticcrude	lb.	.12	@ —
Petrolatum, white		.10⅜	@ .11
amber		.03⅝	@ .03¾
dark amber	lb.	.03⅜	@ .03½
Pine, steam distilled	lb.	.63	@ .65
Rapeseed, refined	gal.	.93	@ .95
blown	gal.	1.10	@ —
Rosin, first rectified	gal.	.85	@ —
second rectified	gal.	.90	@ —
Soya Bean, crude		.13¼	@ .13⅛
Synthecite	lb.	.06	@ —
Tar, commercial	gal.	.30	@ .32
Resins and Pitches			
Parra M.R.	lb.	.06	@ .07
Tar Retort	bbl.	15.00	@15.50
kiln burned	bbl.	15.00	@15.50
Pitch, Burgundy	lb.	.06	@ .06½
coal tar	gal.	.05½	@ .06
pine	bbl.	6.50	@ 9.50
Rosin, grade K	bbl.	15.50	@ —
Solvents			
Alcohol denatured, No. 1 bbls.	gal.	.60½	@ .64½
Benzol, 90%	gal.	.28	@ .30
pure		.32	@ —
Carbon bisulphide	lb.	.06	@ .07
tetrachloride	lb.	.06¾	@ .07
Dimethylaniline	lb.	.31	@ .33
Motor gasoline, steel bbls.	gal.	.17	@ —
Naptha, V. M. & P.	gal.	.14¾	@ —
Toulene	gal.	.31	@ —
Turpentine, spirits	gal.	1.09	@ 1.10
wood	gal.	.95	@ .96
Waxes			
Beeswax	lb.	.55	@ .65
Carnauba, No 1	lb.	.47	@ .50
Ceresin, white	lb.	.10	@ .11
Montan, crude	lb.	.06	@ .06½
Ozokerite, black	lb.	.24	@ .25
green	lb.	.26	@ .30
ParaffineWhite,A.M.P.	lb.	.05¾	@ .05⅞
Yellow A.M.P.	lb.	.05⅝	@ .05¾
Sweet wax	lb.	.12	@ —

SUBSTITUTES

Black	lb.	.08½	@ .15
White	lb.	.10½	@ .17½
Brown	lb.	.09	@ .18
Brown factice	lb.	.10	@ .16
White factice	lb.	.10½	@ .17½

VULCANIZING INGREDIENTS

Black hyposulphite	lb.	.18	@ .20
Ethyl Chloride, Cyl.	lb.	.55	@ —
" " Drums	lb.	.45	@ —
Sulphur Chloride (drums)	lb.	.06	@ —
Sulphur flour Superfine, bags	cwt.	2.20	@ 2.50
" bbls.	cwt.	2.60	@ 2.90
100% pure, refined, bags	cwt.	2.35	@ 2.90
bbls.	cwt.	2.90	@ 3.15